PUBLIC-PRIVATE PARTNERSHIPS AS A DELIVERY OPTION FOR PUBLIC SCHOOLS IN THE WESTERN CAPE

by
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DECLARATION

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SUMMARY/ABSTRACT

The Western Cape is currently experiencing a population explosion alongside rapid urbanisation. This places pressure on the provincial departments involved in the provision of public education infrastructure to meet the demand for schools created by the associated increase in learners. Despite best efforts by the components responsible for delivery, demand is not being met due to a combination of chronic lack of internal resource capacity and inadequate funding. In recent years the national government has taken a keen interest in streamlining infrastructure delivery frameworks. This has led the focus to fall squarely on optimising the traditional infrastructure procurement (TIP) paradigm, specifically in respect to optimising the mode of delivery of public schools, with little being done to similarly optimise alternative procurement models, such as public-private partnerships (PPPs).

In order to investigate the alternative procurement method of PPPs, this research report identifies applicable means, modes, critical success factors and regulatory frameworks, with specific reference to the both the provision of public schools and the context of the Western Cape province. Particular consideration is given to conditions in the local public service and construction industry to identify whether the present environment is conducive to the effective delivery of public schools via PPPs. The empirical analysis involves a combination of case study research, as well as quantitative and qualitative data collection of factors critical to the success of the mode in the local context in an effort to identify constraints and propose solutions. Data collection involves a triangulated study beginning with a review of PPPs in South Africa (a secondary data analysis of existing research on local case studies) to identify the contextual factors, which is followed by a quantitative survey to measure these factors in the current local context and, finally, in-depth interviews to investigate the underlying reasons and proposed solutions to address constraints.

Key findings include a need for PPP-oriented capacity-building amongst public sector implementing agencies, addressing the shortage of will and advocacy amongst political office bearers due to the perception that PPPs present a significant risk to the public sector, and a need to streamline procurement processes by shifting towards a programmatic procurement model, i.e. moving away from the traditional PPP mode as

a vehicle for singular projects, to the implementation of a public-private variant for the delivery of a programme of replicable public education infrastructure projects.

OPSOMMING

Die Wes-Kaap beleef tans ’n bevolkingsontploffing tesame met snelle verstedeliking. Dít plaas druk op die provinsiale departemente gemoeid met die lewering van openbare onderwysinfrastruktuur om te voorsien in die groter vraag na skole weens die toename in leerders. Ten spyte van die beste pogings deur die partye wat vir lewering verantwoordelik is, word daar weens ’n kombinasie van ’n chroniese tekort aan interne hulpbronvermoë en onvoldoende finansiering nié tans in hierdie vraag voorsien nie. Die nasionale regering toon die afgelope paar jaar al hoe meer belangstelling daarin om infrastruktuurleweringsraamwerke te stroomlyn. Tog val die klem voluit op die optimalisering van die tradisionele infrastruktuurverkrygings- (“TIP-”)paradigma, in die besonder die optimalisering van die tradisionele metode vir die lewering van openbare skole, en word weinig gedoen om ook alternatiewe verkrygingsmodelle, soos openbare-privaat vennootskappe (“PPP’s”), te optimaliseer.

Om PPP’s as ’n alternatiewe verkrygingsmetode te ondersoek, identifiseer hierdie navorsingsverslag gepaste middele, metodes, kernsuksesfaktore en reguleringsraamwerke met spesifieke verwysing na die voorsiening van openbare skole in die provinsiale konteks van die Wes-Kaap. Omstandighede in die plaaslike staatsdiens en die boubedryf word veral bestudeer om te bepaal of die huidige omgewing bevorderlik is vir die doeltreffende lewering van openbare skole deur middel van PPP’s. Die empiriese ontleding kombineer gevallestudienavorsing met kwantitatiewe en kwalitatiewe data-insameling oor deurslaggewende faktore vir die sukses van dié metode in plaaslike verband om sodoende beperkings uit te wys en oplossings voor te stel. Data-insameling bestaan uit ’n getrianguleerde studie, wat begin met ’n oorsig van PPP’s in Suid-Afrika (’n sekondêre dataontleding van bestaande navorsing oor plaaslike gevallestudies) om die kontekstuele faktore te identifiseer. Daarna volg ’n kwantitatiewe opname om hierdie faktore in die huidige plaaslike konteks te meet. Laastens word diepteonderhoude gevoer om die onderliggende redes en voorgestelde oplossings vir die beperkings te ondersoek.

Kernbevindinge sluit in ’n behoefte aan PPP-gerigte vermoëbou onder implementeringsagentskappe in die openbare sektor, sowel as aan voorspraak onder onwillige politieke ampsdraers om die opvatting teen te werk dat PPP’s ’n beduidende risiko vir die openbare sektor inhou. Die studie identifiseer ook ’n behoefte aan die

stroomlyning van verkrygingsprosesse deur na ’n programmatiese verkrygingsmodel oor te slaan, d.w.s. deur weg te beweeg van die tradisionele PPP-metode vir die lewering van enkele projekte, na die implementering van ’n ander tipe openbare-privaat model vir die voorsiening van ’n hele program repliseerbare openbare onderwysinfrastruktuurprojekte.

KEYWORDS

public-private partnerships, basic education, public-sector education infrastructure, public-sector infrastructure procurement, scarce resources, traditional infrastructure procurement, alternative procurement methodologies

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This paper is dedicated to my wife, Ruth, as well as my two daughters and my parents, Colleen and Barry, all of whom (either knowingly or unknowingly and each in their own unique way) provided the means, support and inspiration for this endeavour.

I would also like to acknowledge the participants in this research process who gave their valuable time and opinions willingly, encouragingly and expectantly. It is my hope that this project honours their contributions by making a valuable addition to the body of knowledge on the subject of PPPs and public infrastructure delivery in the context of a developing nation beset by challenges and, yet, overflowing with opportunity.

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ABBREVIATIONS

AO	Accounting Officer
ASIDI	Accelerated Schools Infrastructure Delivery Initiative
BBO	Buy-Build-Operate
BDO	Build-Develop-Operate
BLOT	Build-Lease-Operate-Transfer
BOO	Build-Own-Operate
BOOT	Build-Own-Operate-Transfer
BOT	Build-Operate-Transfer
BROT	Build-Rent-Own-Transfer
BTO	Build-Transfer-Operate
CFO	Chief Financial Officer
CIDB	Construction Industry Development Board
CPI	Consumer Price Index
CSF	Critical Success Factor
CSI	Corporate Social Investment
DBE	Department of Basic Education
DBFO	Design-Build-Finance-Operate
DBSA	Development Bank of South Africa
DCMF	Design-Construct-Manage-Finance
DEA&DP	Department of Environmental Affairs and Development Planning (WCG)
DEDAT	Department of Economic Development and Tourism (WCG)

DFE	Department for Education (UK)
DG	Director General
DOH	Department of Health
DORA	Division of Revenue Act
DTPW	Department of Transport and Public Works (WCG)
ECDOH	Eastern Cape Department of Health
EIA	Environmental Impact Assessment
EIG	Education Infrastructure Grant
FSDOH	Free State Department of Health
GDP	Gross Domestic Product
GFIP	Gauteng Freeway Improvement Project
GMA	Gautrain Management Agency
GTAC	Government Technical Advisory Centre
HIA	Heritage Impact Assessment
HOD	Head of Department
IDIP	Infrastructure Delivery Improvement Plan
IDMS	Infrastructure Delivery Management System
IPP	Independent Power Producers
LDO	Lease-Develop-Operate
MTEF	Medium-Term Expenditure Framework
NDP	National Development Plan
NPC	National Planning Commission

NT	National Treasury
OECD	Organisation for Economic Cooperation and Development
PFI	Private Finance Initiative
PFMA	Public Finance Management Act (RSA)
PIA	Preferred Implementing Agent
PPP	Public-Private Partnership
PSC	Public Sector Comparator
PSP	Professional Service Provider
PST	Province Support Team
PT	Provincial Treasury (WCG)
RFP	Request for Proposals
RFQ	Request for Qualification (or Pre-Qualification, in some cases)
ROI	Return on Investment
RSA	Republic of South Africa
SCM	Supply Chain Management
SED	Socio-Economic Development
SIPDM	Standard for Infrastructure Procurement and Delivery Management
SMME	Small, Medium and Micro-Enterprise(s)
SPV	Special Purpose Vehicle
TA	Transaction Advisor
TIP	Traditional Infrastructure Procurement
U-AMP	User Asset Management Plan

UK	United Kingdom
VAT	Value Added Tax
VFM	Value for Money
WCED	Western Cape Education Department
WCG	Western Cape Government
WCGDOH	Western Cape Government Department of Health

1: INTRODUCTION

1.1 INTRODUCTION

This research report began as an investigation into how the public sector could upscale the implementation of public infrastructure, specifically education infrastructure (public schools), through the use of untapped delivery methodologies to meet the demand in the Western Cape province. This chapter seeks to place the provision of public schools into the current environmental context, while considering the origins of the demand for schools in the province and the various methodologies available to the public service to meet this demand.

The chapter concludes with an overview of the existing paradigms of public sector infrastructure delivery and an introduction to the scope of private sector involvement in public schools to date. The public-private partnership (PPP) model is introduced and basically described, ready to be unpacked in more detail in Chapter 2.

1.2 POPULATION GROWTH AND RAPID URBANISATION IN THE WESTERN CAPE

The Western Cape is currently experiencing a population explosion as migrants flock to the province with the expectation of better opportunities, greater access to basic services and a chance at improved overall quality of life. While South Africa's (SA's) population is already significantly urbanised, at nearly 66% – well above the global average of 54% – the Western Cape province is forecast to increase from a figure of 69% in 2015 to 76% in 25 years' time. This major increase is essentially within the space of a single generation (Statista, 2018; van Zyl, 2017:12-13). A recent research report on population change in the Western Cape conducted by the FuturesCape Project of the Western Cape government projects a population expansion from 6.5 million in 2017 to 7.9 million by 2030 – a 20% increase (Markle & Van Der Lingen, 2018:14). The primary reason is cited as migration into the province from regions both within South Africa's borders or elsewhere within Sub-Saharan Africa.

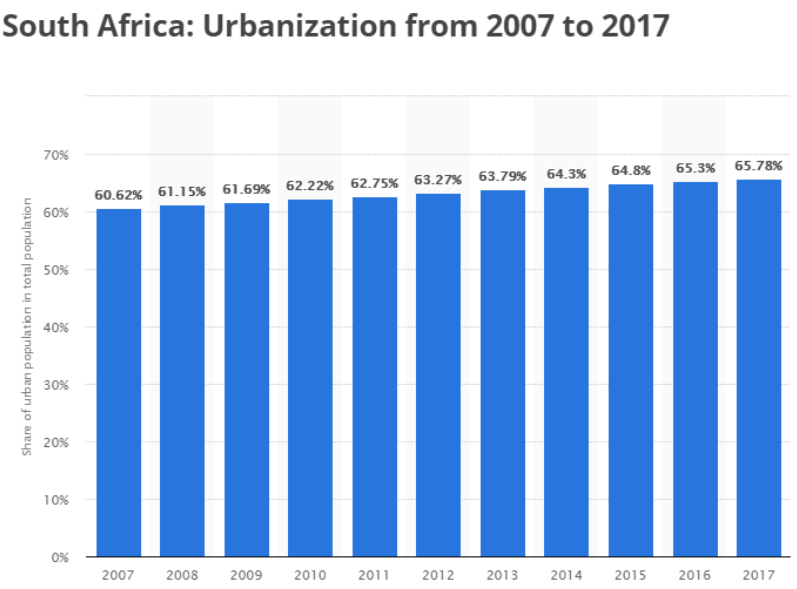


Figure 1: Urbanisation in South Africa from 2007 to 2017

(Statista, 2018)

This rapid influx places significant pressure on the availability of, and access to, basic services (e.g. water, sanitation and electricity), housing, healthcare, transportation and education. In light of this population explosion, the FuturesCape report includes a focus on the delivery of education infrastructure with estimates that at least "11 schools need to be built per annum and R600 million [needs] to be spent on maintenance" (Markle & Van Der Lingen, 2018:16-17).

1.3 PROVISION OF PUBLIC-SECTOR EDUCATION FACILITIES IN THE WESTERN CAPE

Section 29 of the Constitution of the Republic of South Africa declares that "everyone has the right to a basic education" (RSA, 1996a:19). As such, it is incumbent on the state to provide the means for its citizens to be able to benefit from this constitutional imperative and, therefore, the infrastructure necessary to support it (Gnade, 2013:2). The national government makes provision for the financial means by way of grant allocations to various provincial departments who are, in turn, mandated to carry out implementation and operation of basic education facilities in their respective provinces.

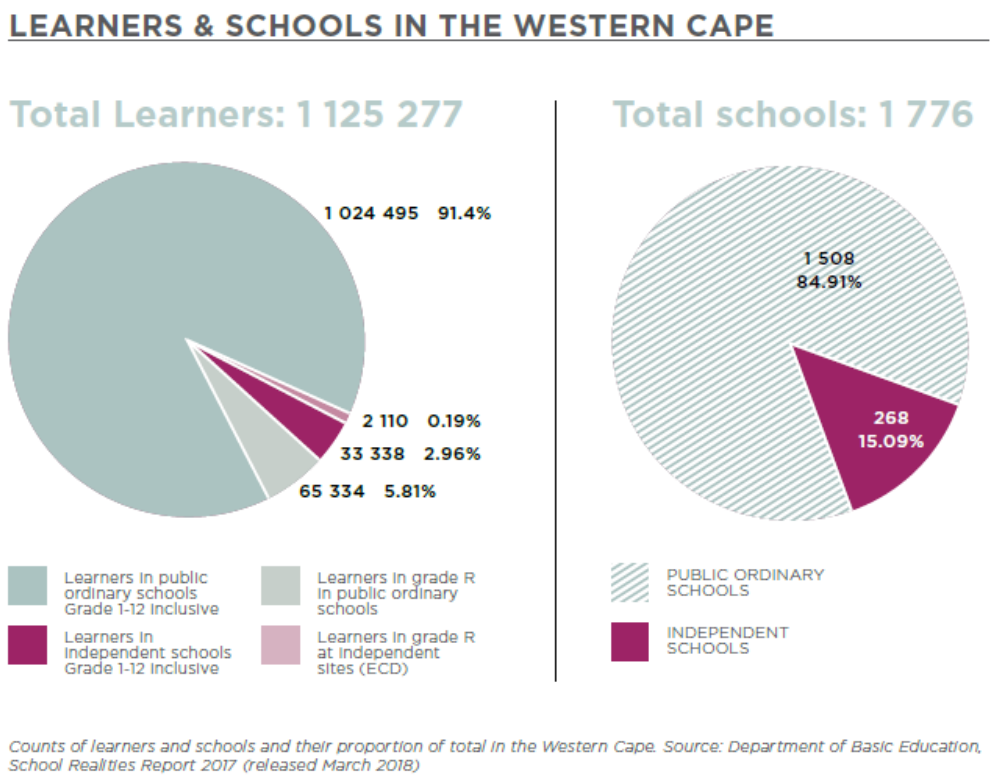


Figure 2: Learners and schools in the Western Cape province

(Markle & Van Der Lingen, 2018:19)

The Western Cape Education Department (WCED) is therefore mandated to provide, coordinate and deliver all operational aspects of basic education in the province, making them responsible for the 1.024 million learners in the public ordinary school system and the day-to-day management of the 1 508 state facilities (see Figure 2). Added to the administration and operation of schools, the WCED is responsible for coordinating the provision of infrastructure through the Department of Transport and Public Works (DTPW), who takes on the implementing and custodial role for all provincial infrastructure facilities. This arrangement is formalised and overseen by the Western Cape government's (WCG's) Provincial Treasury (PT), with the DTPW being designated 'preferred implementing agent' (PIA) on behalf of the WCED. The DTPW is therefore obliged to implement the infrastructure projects and programmes necessary to ensure that all learners in the province have access to basic education.

Reflecting the urbanisation statistics already mentioned, approximately 50% of the province's public schools are densely concentrated in the City of Cape Town metropolitan area, which is sub-divided into four districts (Metro North, Metro East,

Metro South and Metro Central). The remainder of the schools are spread over the sparser, more rural regions of the province.

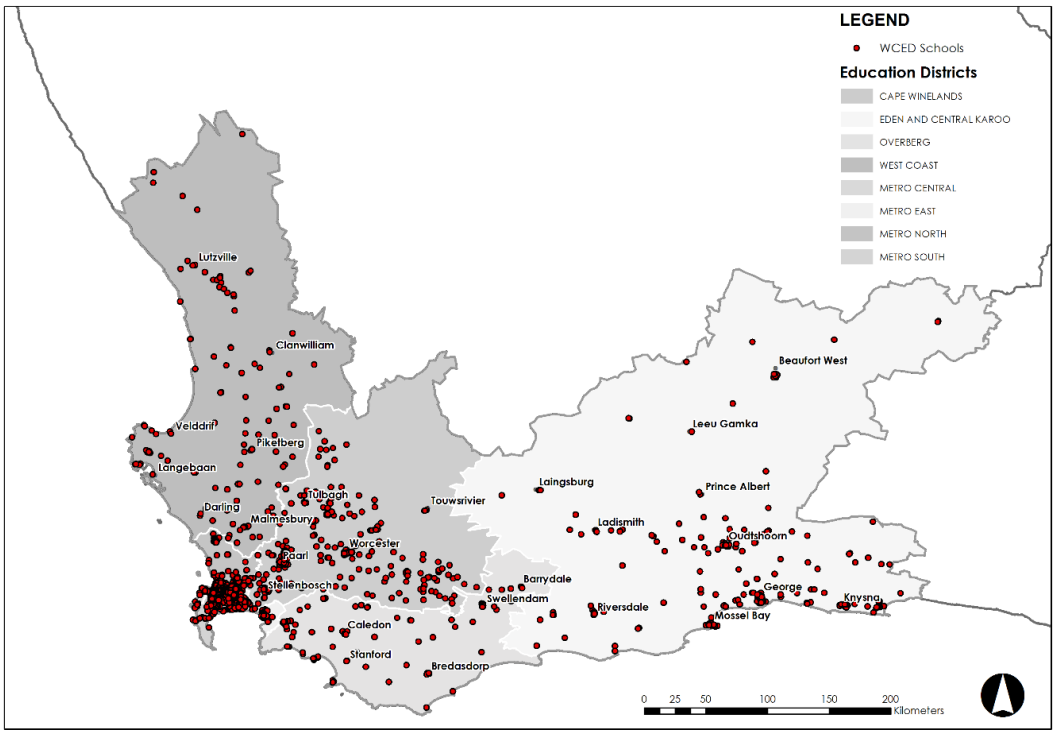


Figure 3: Distribution of public ordinary schools in the Western Cape province

(WCED, 2018:67)

The infrastructure requirements of the department are carefully planned to reflect the current and forecasted need for public schools in the province. This planning is distilled annually in the WCED's User Asset Management Plan (U-AMP). This document is the first in a series of strategic plans prescribed by the Infrastructure Delivery Management System or IDMS. The detailed level of budgeting included in the plan is a requirement of the treasury regulations and the Division of Revenue Act (DoRA). The U-AMP goes into explicit detail regarding the specific education infrastructure needed to expand the portfolio of public schools in order to meet the demand for facilities in the various districts of the province. This data is based on enrolment figures tracked over a ten-year period to establish the trends in the various areas, essentially a rough regression analysis. As illustrated by Table 1, data indicates an overall increase of 13.5% in the

province for the period 2009-2017, with the Eastern and Southern Metropolitan districts exhibiting the largest percentage increases at 29.7% and 20.6% respectively.

Table 1: Learner growth over the past ten years for public ordinary schools

	Column A	Column B	Column C	Column D	Column E	Column F
District	Learner Numbers 10 Years Ago 2009	% Growth/ Decline (Variance A to C)	Learner Numbers 5 Years Ago 2013	% Growth/ Decline (Variance C to E)	Learner Numbers Present 2017	% Growth/ Decline (Variance A to E)
PROVINCE	970,973	**6.0**	1,029,249	**7.1**	1,102,283	**13.5**
CAPE WINELANDS	143,729	**4.7**	150,506	**4.8**	157772	**9.8**
EDEN AND CENTRAL KAROO	115,600	**5.8**	122,263	**4.2**	127412	**10.2**
METRO CENTRAL	136,714	**2.5**	140,132	**0.8**	141244	**3.3**
METRO EAST	150,898	**3.2**	155,652	**25.8**	195766	**29.7**
METRO NORTH	170,836	**11.3**	190,067	**-5.6**	179346	**5.0**
METRO SOUTH	157,416	**6.4**	167,528	**13.3**	189810	**20.6**
OVERBERG	38,886	**6.8**	41,526	**7.4**	44580	**14.6**
WEST COAST	56,894	**8.2**	61,575	**7.8**	66353	**16.6**

Enrolment for WCED Public Ordinary and LSEN Schools (Annual School Survey for 2009 - 2016 and CEMIS 14/06/2017 for 2017)

Source: WCED (2018:42)

The WCED is well aware of the impact of the population increase and the effect on learner numbers in the province. The provincial Minister of Education notes that the consistent influx of people into the province, and especially into the Cape Town metropolitan area (the city and surrounds), means that there will be a need to considerably increase infrastructure delivery to match the demand (Schafer, 2018).

> *"In order to accommodate the additional 25 388 learners this year alone, we effectively need another 25-30 schools, which cost around R60 million per school. This totals between R1,5 and R1,8 billion. Given that we have similar numbers every year, we require that kind of budget every year JUST for new schools. Given that we still have backlogs in our existing infrastructure requirements, as well as that we have to maintain our existing infrastructure, it is quite obvious that the amount allocated is insufficient."*
>
> (Schafer, 2018)

Within this context, and according to the WCED's 2018/19 UAMP, the Western Cape province faces the following major challenges with respect to the provision of education infrastructure:

- An estimated average of between 15 000 and 20 000 additional learners in the province annually for the coming years, meaning a need for new facilities and extensions to existing facilities across the province;
- Declining conditions of the existing overall public-school portfolio, requiring a shift to maintenance to ensure that infrastructure is adequately maintained;
- 207 schools (nearly 14% of the portfolio) identified as being constructed from inappropriate materials (wood, metal and asbestos), which need to be completely replaced; and
- A general lack of adequate budget provision from the treasury to fund the need for effective infrastructure delivery in the province.

(WCED, 2018:71-88).

To build sufficient new schools, replace inadequately constructed schools and reverse the declining conditions of existing schools, it is estimated that a provision of roughly R2 billion per annum is required. This is well above the current average annual allocation of R1.5 to 1.6 billion for the next three financial years (WCED, 2018:87). The shortfall means that not only are current needs not being met, but there is a progressive deficit between demand and supply that the government is simply not able to address given the fiscal constraints.

In the absence of new facilities to absorb learners, the present mitigation strategy is to allow an increase in the learner-educator ratio, i.e. bigger classes at existing schools, which means increasing the density of learners at facilities. The Western Cape is already well above the national average in this regard with 37.3 learners to educators versus a national average of 33.4 in 2013 (Markle & Van Der Lingen, 2018:17). This has an unfortunate side effect of being detrimental to the delivery of quality education: higher learner-educator ratios (larger classes) are generally associated with poor quality education, with lower pass rates being a key indicator.

1.4 SOUTH AFRICAN PUBLIC-SECTOR INFRASTRUCTURE IMPLEMENTATION

> *"Government invests in infrastructure, such as healthcare facilities, schools, housing and roads, in order to provide citizens with access to services and to promote social wellbeing. South Africa's infrastructure challenges are not primarily the result of a lack of funding but are caused by institutional failures and a lack of appropriate capacity within departments."*
>
> (RSA National Treasury, 2014:197)

The National Treasury (NT) is aware of the need to rapidly create conditions for developmental and sustainable infrastructure delivery. With assistance from the Construction Industry Development Board (CIDB), the Development Bank of Southern Africa (DBSA) and various national departments, it has taken a keen interest in providing the framework for the public service to better initiate, plan, develop, procure and deliver infrastructure programmes and projects ready to meet and serve the needs of a growing, rapidly urbanising population.

Since 2001, the NT has commissioned, developed and refined policies and strategies to address the backlog of infrastructure delivery critical to the developmental goals of the Constitution. Originating from the findings of the Infrastructure Delivery Improvement Plan (IDIP), the Infrastructure Delivery Management System (IDMS) was launched in 2004 to create a 'best practice' approach to public infrastructure delivery through a national standard implemented across the various public works departments at national and provincial level (CIDB, 2010). The IDMS seeks to standardise the delivery process by aligning the existing norms and standards present within the South African construction industry in terms of planning, design, procurement and delivery with the relevant national policy frameworks. The secondary objective is to embed the principles of good governance into the process, thereby mitigating irregular expenditure and corruption – a considerable risk due to the scale of public funds involved in the provision of public infrastructure.

> *"Slow infrastructure spending has resulted in challenges regarding the delivery of new infrastructure and the maintenance of existing assets, and government is struggling to attract and retain crucial skills in the built environment. This affects the quality of planning and the project management of construction works. One of government's key strategies to address the problem has been the development of the Infrastructure Delivery Management System (IDMS). The issuing of the SIPDM in support of the IDMS provides an excellent framework within which construction projects can be procured, delivered and maintained."*
>
> (Civilution, 2016:4)

The IDMS has since been supplemented with the Standard for Infrastructure Procurement and Delivery Management (SIPDM), effective July 2016 (RSA National Treasury, 2015), which focusses on the alignment of procurement, contracting and delivery strategies for infrastructure delivery with the delivery goals and good governance agenda of the National Development Plan 2030 (NPC, 2012). Although meant as enablers, the challenge for the public officials deployed in implementation roles is to deliver programmes and projects in compliance with these mandatory policy tools in an environment where the South African economy, building industry and public service are simultaneously developing, growing, and under-resourced, respectively.

In terms of external resources, the construction industry in SA is well-developed at a medium to large scale, but constrained in terms of adequately skilled contractors at the lower end of the spectrum. Medium- to large-scale contractors are readily available to fulfil the infrastructure needs of government, but smaller or emerging contractors are regularly found to be inadequately skilled in contract management and administration, often finding themselves at odds with stringent policy requirements. This deficiency in adequately managing and administering contracts is detrimental to success in the industry in terms of two aspects: (1) a lack of able contract administration leading to late delivery and penalties, which further leads to dire financial consequences for smaller contractors who have little access to credit or spare finance; and (2) meagre

track records due to regular poor delivery, limiting these contractors' ability to procure further work.

1.5 CURRENT DELIVERY ARRANGEMENTS FOR EDUCATION INFRASTRUCTURE IN THE WESTERN CAPE

As the preferred implementing agent, the DTPW has a mandate to deliver the WCED's infrastructure needs. The DTPW's Chief Directorate: Education Infrastructure is staffed with construction specialists who implement projects on behalf of the WCED according to their annual requirements. The WCED holds the budget and is thus responsible for providing the funds for each project or delivery programme and ensuring adequate spend in line with the Provincial Treasury regulations. As such, positive inter-departmental coordination is critical to the successful implementation of education infrastructure projects. The DTPW contracts with the private sector in order to provide the necessary resources to implement projects and programmes. This entails contracting professional resources (professional service providers or PSPs) to provide human capital to design and manage the detailed implementation of the works, as well as contractors who supply the means to provide the work itself.

As a building type, schools are relatively uncomplicated. Schools do not require complex or particularly specialised accommodation requirements, their civil and structural engineering design is fairly standard due to their low scale and they do not require specialised services, such as complex mechanical ventilation or specialised electrical or electronic requirements. When compared to other public infrastructure typologies the relatively uncomplicated nature of schools allows resources to be stretched across more projects. This creates scope for internal public-sector specialists involved in education facilities to work on a considerable number of school projects simultaneously. However, considering the growth path of the infrastructure, this situation is not sustainable given current provisions and places strain on the public sector, where the need for new facilities in the Western Cape extends beyond the delivery capacity of the officials available to deliver in the traditional mode. This situation requires an urgent rethink to optimise current processes and investigate alternative delivery methods.

Procurement and implementation of public sector infrastructure in South Africa has traditionally been a one-way relationship whereby civil service contracts necessary resources from the private sector. Financed by government funds, infrastructure is procured, operated and maintained on an owner-supplier basis whereby government specifies the works required and supplies necessary finances, while the private sector provides the expertise and resources. Once completed, the infrastructure remains the property of government in terms of operation, maintenance, repurposing and disposal.

There are various methods available to government to contract with the private sector, with the most common method being what is termed the 'client-contractor' model, also known as traditional infrastructure procurement or TIP. In this instance the employer (the state) contracts PSPs to design the facility required to a point where the documentation is of such a quality that these detailed specifications and drawings are put out to tender for contractors to bid to provide the works. In terms of procurement, this methodology forms the tried and tested manner for the public-sector infrastructure agent to achieve best design and value with maximum control and minimum risk. The constraint with this method is the intensive resources and time required to plan, promote and manage projects on the part of the public-sector implementation agent. Alternative delivery methodologies still classified as TIP involve engaging with the contractor at an incrementally earlier stage: 'develop and construct', 'design and construct' and 'management contracting', with each allowing contractor involvement at a progressively earlier stage in the process in order to foster collaboration. The aim of this is more efficient and effective implementation. However, these variants still rely on the public sector to manage, coordinate and ultimately take full risk for procurement and delivery, meaning that the public sector agent still has to ensure that they are sufficiently resourced.

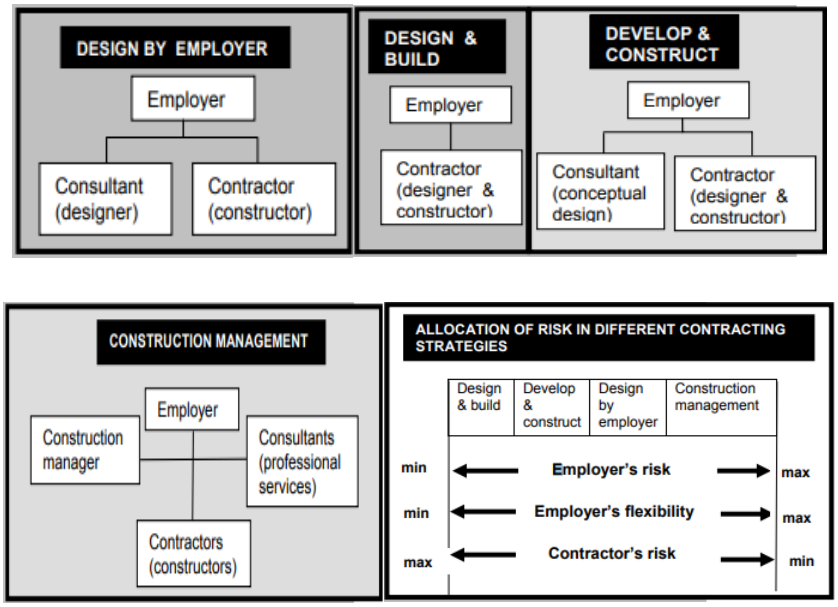


Figure 4: Proposed contracting arrangements and associated risk allocation

(CIDB, 2006:4)

Since the 1980s, the concept of New Public Management in Britain and the US saw the civil service dispense with its traditional 'master-servant' relationship and introduce the concept of partnering with the private sector. The public-private partnership (PPP) was born with the purpose of sharing the role of implementing infrastructure. Critical new elements were the introduction of alternate financing arrangements and the re-allocation of risk, with the government and private sector each taking a share in the financial profit and loss of projects, marking a substantial divergence from TIP. SA has, since the early 2000s, engaged with the private sector in various PPP arrangements (RSA National Treasury, 2007). With the creation of the public-private partnership unit within the National Treasury and a regulatory framework in terms of the Public Finance Management Act (RSA National Treasury, 2005), PPPs have been used to deliver various public-sector projects. However, PPPs have yet to be tested in the provision of education infrastructure in SA. The challenge under consideration is to investigate the applicability of harnessing the private sector in a partnership arrangement (i.e. through a PPP) to provide schools more effectively and efficiently.

1.6 PRIVATE-SECTOR INVOLVEMENT IN LOCAL PUBLIC SCHOOLS TO DATE

While an education infrastructure PPP remains untested, it would be inaccurate to state that private-sector involvement in public education has not yet been considered in some manner or form. Public schools have been supported by private sector involvement for many years, but these were generally seen as corporate social investment (CSI) initiatives, such as the Kagiso Trust in the Free State and Limpopo which has implemented the Beyers Naudé Schools Development Programme since 2007 (Guduka, 2016; Sowetan Live, 2019). These programmes have a far more holistic focus, with the provision of infrastructure being just one objective. These partnerships, although often cited as 'public-private partnerships' by many commentators due to them being funded by a combination of public and private finance, miss a key element that this research project intends to review: a financial return on investment (ROI) for the private partner. As such, these partnerships are only as sustainable as their donors permit.

Although private-sector involvement in public education is being piloted in the Western Cape, at present this does not include an infrastructure element. The involvement is limited to school management and operations. In a newsletter penned in 2016, the Premier of the Western Cape described the implementation of a pilot partnership agreement for five local 'Collaboration Schools', aimed introducing non-profits and sponsors to operate public schools (Zille, 2016). The model is based on the 'Academy Schools' programme in the United Kingdom. Under this model, public schools normally operated and funded by the local authority are instead funded directly by the United Kingdom's (UK's) Department for Education (DfE). Academy schools are permitted considerable discretion in terms of their operating norms. Critically, this includes admission criteria, curriculum selection and staff remuneration (UNISON, n.d.).

The Academy Schools model was originally intended to target underperforming schools in specific communities with the concept being that this new state of self-determination would allow private trusts to operate and manage the schools with the freedom to choose how best to meet the educational need of their given context (Eyles & Machin, 2018:1). While initial reports extolled the virtues of the model, the Academy Schools programme in the UK has drawn considerable criticism. Recent reports cite

falling educational standards and financial irregularities with regard to the remuneration of principals and board members; the blame being laid with the deregulated environment within which they are permitted to operate, and on private sector interests outweighing those of the public that they were set up to serve (Sodha, 2018; Inge, 2018).

Similar to the privately operated and managed Academy Schools in the UK, Charter Schools in the United States have been severely criticised for draining funding from public schools that operate within the same district (Lafer, 2018:5). This is due to the fact that schools are assigned funding in proportion to the number of students in attendance. As students leave the public-school system in favour of charter schools, so the funding goes with them. The result is reduced educational standards, falling enrolments and job cuts in public schools (Lafer, 2018:6).

This situation is not unique to the developed world. Closer to South Africa, the Bridge Schools model in Uganda, similar to the Academy and Charter Schools models, was closed based on "poor infrastructural conditions and under-qualified teachers" and protests by civil action groups and government ministers alike (Black, 2017; New Vision, 2018). Citing the international precedent available on Academy Schools in the UK, Charter Schools in the US and Bridge Schools in Uganda, Black (2017) identifies the need to proceed with caution in introducing similar private-sector actors into the South African public education system. This concern is rooted in reports that, while the impact (positive or negative) on learning outcomes are inconclusive, there is a pro rata (per learner) increase in administration costs (operational spend) and decrease in instructional costs (teaching spend). This situation is further impaired by the secondary impact on the quality of teaching – these schools generally employ younger, less-experienced educators and experience high staff turnover (Black, 2017). The negative long-term effects on learning outcomes is apparent.

1.7 RESEARCH PROPOSAL AND REPORT STRUCTURE

Given the abovementioned context, the research question under review is: what can public-sector implementing agencies do to address the growing deficit between the demand and supply of public schools in the Western Cape? The subtext to this question involves an investigation into what options are available and how the solutions can best

become feasible, i.e. what can be done to create a favourable climate to give alternative delivery mechanisms the best chance of success?

To answer these questions, Chapter 2 will review the conditions and challenges in the current context of public infrastructure delivery. Potential options will be identified and the various factors critical to their success will be investigated through a review of available literature. The legislative and regulatory framework for the alternatives will be reviewed in Chapter 3. Chapter 3 will also include a review of the effects that these policy frameworks have had on the industry to date.

Chapter 4 introduces the detailed research design and methodology as the project enters its empirical phase. This phase has three steps that will be analysed in the two subsequent chapters: Chapter 5 identifies the factors that require review through case study analysis (content analysis of secondary data), followed by Chapter 6 where the factors identified in the previous chapter are quantified to establish their relative levels of priority in the present environment using a survey questionnaire and conducting depth interviews to delve into the underlying reasons for the survey findings and identify proposals to address them. Triangulating the study through utilising multiple modes of data analysis to establish findings adds the benefit of increasing the validity of the study.

To round off the research project, Chapter 7 includes a discussion on the way forward for future research. This includes a proposal on the feasibility of implementing the recommendations before the summary and conclusion in Chapter 8.

1.8 CHAPTER SUMMARY

This chapter reviewed the way in which population growth in the Western Cape and rapid urbanisation in the Cape Town metro currently places pressure on all levels of government to deliver public infrastructure to meet demand. The provincial government is under pressure to scale up delivery of public schools to keep up with its constitutional mandate of providing the means for basic education to an increasing population. While political pressure prioritises the provision of new schools, many older schools built of inappropriate materials are scheduled to be completely replaced. Worse still, the remainder of the portfolio, approximately 1 500 public schools, is slowly sliding into

disrepair due to a lack of planned maintenance activities. The key reasons given for this underperformance are inadequate budget provision and a lack of internal resources to implement the required projects and programmes.

This chapter also provided an overview of how the SA public service delivers infrastructure, where it is evident that there is a preference for traditional procurement modes that rely heavily on internal resource capacity and retain most of the risks associated with delivery. While private sector involvement is not new to the provision of education in SA, it is typically associated with private schooling with application in the public realm currently limited to corporate social investment (CSI) projects where there is no return on investment (ROI) for the private partner. In the context of this research project the use of the traditional public-private partnership (PPP) model (where both the public and private sector benefit from the arrangement in the provision of public schools) has yet to see practical application in this country. Finally, the way forward was outlined in terms of the proposed content and structure to tackle the research problem.

2: LITERATURE REVIEW – PUBLIC SECTOR INFRASTRUCTURE DELIVERY AND PUBLIC-PRIVATE PARTNERSHIPS

2.1 CHAPTER INTRODUCTION

In order to research applicable alternative mechanisms to accelerate the delivery of public schools in the Western Cape, it is first necessary to review the available paradigms, the regulatory framework for these paradigms and the factors and conditions influencing these paradigms. This chapter begins with a review of the model for state infrastructure delivery most familiar to public sector officials delivering public schools in the Western Cape. The variants of this mode will be critically reviewed before entering into an investigation of public-private partnerships, which are currently untested in the field of public schools in the local context. However, the broader context of public infrastructure delivery first requires an overview before the PPP mode can be thoroughly reviewed. To provide this methodology for analysis requires a formulation of the conceptual framework underpinning the broader context.

2.2 CONCEPTUAL FRAMEWORK

The conceptual framework for delivery of public schools in the Western Cape can be argued as resting on three distinct elements:

1. The procurement and delivery options available to public sector infrastructure delivery components;
2. Current conditions in the internal and external environment; and
3. The legislative and regulatory framework for procurement and delivery.

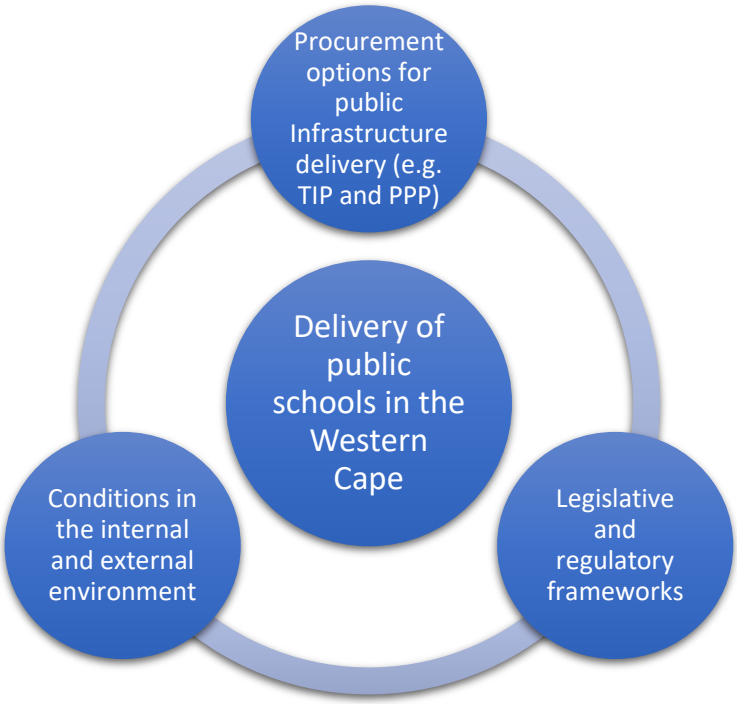


Figure 5: Diagram of the conceptual framework underpinning the research proposal methodology

While legislative and regulatory frameworks are covered in Chapter 3, this chapter focuses on a detailed analysis and critical review of opportunities available for the implementation of public infrastructure projects, as well as an investigation into internal and external conditions using case studies from recent experiences locally and abroad. The next section will start with a review of the prevailing mode of infrastructure delivery in the present environment: traditional infrastructure procurement or TIP.

2.3 PUBLIC-SECTOR INFRASTRUCTURE DELIVERY

2.3.1 Traditional Infrastructure Procurement

Before launching into the possibilities of alternative arrangements, it is important to review how the public service currently implements infrastructure projects. The present paradigm focusses on what is termed the ‘client-contractor’ model, also known as traditional infrastructure procurement (TIP). TIP is defined as the process whereby “the government specifies the quantity and quality of the service, while the infrastructure is constructed by private companies to whom the construction is typically awarded

through tender. Once the construction is finished, the asset is transferred to and operated by government." (Burger & Hawkesworth, 2011:4). Yescombe (2007:4) reiterates this process, noting that in traditional public sector procurement the "Public-Authority sets out the specification and design of the Facility, call for bids on the basis of this detailed design, and pays for construction of the Facility by a private-sector contractor". It is therefore incumbent on the public sector to provide specialist skills necessary to ensure that the arrangements are carefully formulated and implemented so to ensure value for money is achieved at each stage of design, procurement, implementation and delivery.

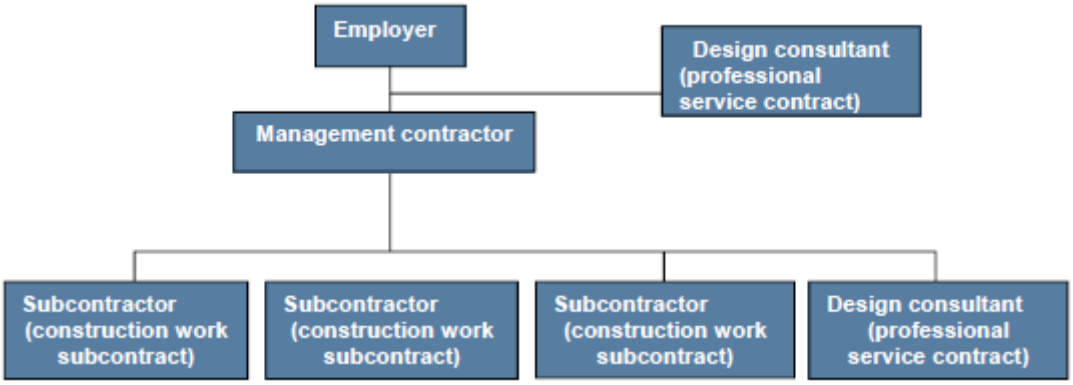


Figure 6: Typical client-contractor relationship associated with traditional infrastructure procurement

(Watermeyer, 2010:73)

In this scenario the responsibility for risk falls primarily on the public-sector authority in terms of ensuring that the specifications, budgetary and financial arrangements, procurement and contracting strategies, as well as the implementation and delivery aspects are all managed and monitored by the state or those contracted directly to it. If any one of these is found to be deficient the state is held liable.

Considering the level of risk placed on the client during TIP it is incumbent on government to ensure that there are adequate frameworks and systems as well as specialist internal officials in place to manage and monitor these risks effectively at all stages of the process. The human capital requirements include strategy and planning specialists to adequately plan and forecast; financial specialists to budget and manage the financial aspects; procurement specialists to arrange and produce contract

documentation, as well as to specify, evaluate and adjudicate bid submissions; infrastructure delivery specialists to implement, drive and monitor projects from inception to completion; and operational specialists to fit out and take over the facility on completion/transfer.

Watermeyer (2010:69) notes that TIP works well when "the client has adequate in-house capabilities and capacity to either undertake the design or to brief consultants and to oversee the design process [and] there is adequate time to complete the design and associated documentation before tenders for construction are invited". Watermeyer and Thumbiran (2009) identify two key constraints in the present environment: the lack of specialist skills in the public service to implement, manage and ensure the effective delivery of projects; and the constraints of the prevailing procurement systems reliant on skilled infrastructure specialists.

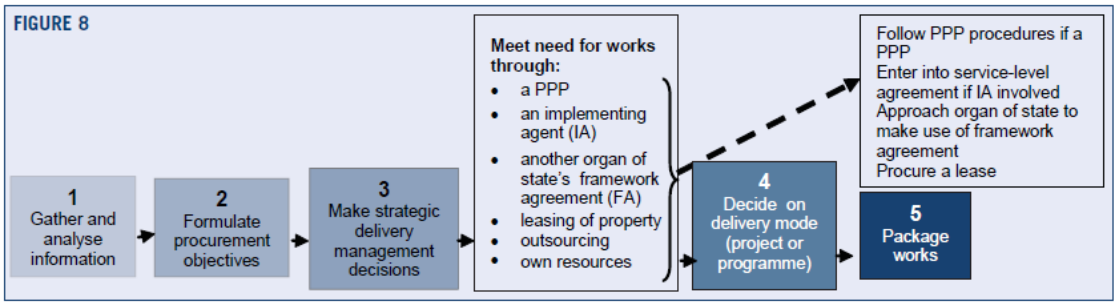


Figure 7: South African public sector infrastructure delivery options

(Watermeyer, 2010:77)

Watermeyer (2010:70) proposes a shift to forms of procurement whereby the contractor takes on greater responsibility in terms of the design and is brought on board at an earlier stage, proposing a shift from the standard TIP contracting strategy of 'design by employer' to 'develop and construct', 'design and construct' and 'management contracting'. However, although there are subtle differences in the risk allocation between these options, ultimately the public-sector entity still takes on most of the risk. These involve financial risks associated with budgeting, project cost monitoring and payment of suppliers; procurement risk in terms of the nature and form of tender and contract; risks associated with quality specification and monitoring; as well as operational risk once the project is complete and transferred to the public-sector owner.

The private sector is limited to being responsible for performance/delivery risk, more specifically relating to time and quality (Burger & Hawkesworth, 2011:4-5).

Table 2: The culture change need to improve performance

CHANGE FROM	CHANGE TO
Master-servant relationship of adversity	Collaboration between two experts
Fragmentation of design and construction	Integration of design and construction
Allowing risks to take their course or extreme and inappropriate risk avoidance or risk transfer	Active, collaborative risk management and mitigation
Meetings focused on the past – what has been done, who is responsible, claims, etc.	Meetings focused on: "How can we finish projects within time and available budget?"
Develop project in response to a stakeholder wish list	Deliver the optimal project within the available budget
'Pay-as-you-go' delivery culture	Discipline of continuous budget control
Constructability and cost model determined by design team and cost consultant **only**	Constructability and cost model developed with contractor's insights
Short-term 'hit-and-run' relationships focused on one-sided gain	Long-term relationships focused on maximising efficiency and shared value
Procurement strategy focused on selection of form of contract	Selected packaging, contracting, pricing and targeting strategy and procurement procedure aligned with project objectives
Project management focused on contract administration	Decisions converge on the achievement of the client's objectives
Training is in classrooms, unconnected with work experience	Capability building is integrated within infrastructure delivery

Source: ICE, 2010, cited in Watermeyer (2010:76)

Watermeyer (2010:77) notes that what is required in SA is a change in culture of delivery in order to address the following issues: "severely stressed departmental and municipal oversight resources; a crisis-management culture, which cuts corners in the planning processes; fragmentation of design and construction with aspects such as constructability and cost-modelling determined by the design team and cost consultant only; tasks being allowed to take their course or extreme and inappropriate risk avoidance or risk transfer; a 'pay-as-you-go' culture, where significant cost overruns are the order of the day; consultant-driven projects frequently with perverse incentives,

for example fee rates as a percentage of the value of the works; [and] a history of under-expenditure and poor service delivery".

2.3.2 The Rise of Public-Private Partnerships

It is generally accepted that public-private partnerships (PPPs) are a vehicle to assist governments in their duty of delivering public services. In the rare event of governments having adequate internal resources to deliver on their mandates there would be no need to investigate alternative means of service delivery. Unfortunately, governments globally are beset by the limitations of finite budgets, lack of internal capacity and bureaucratic processes, all of which stand as constraints to efficient and effective service delivery. Governments the world over constantly engage with the private sector to assist in service delivery, generally through the abovementioned traditional methods but, as noted, traditional infrastructure delivery in the face of the abovementioned limitations can only go so far.

The origins of PPPs lie in the 1800s. Yescombe (2007:5) identifies the origins of PPPs in the concession arrangements or 'user-pays' models of the 19th century where private companies were permitted to repair civil infrastructure such as roads with the promise that they would be able to charge a usage fee or toll in order to recoup the initial investment. More recently the "Power Purchase Agreement (PPA), developed in the United States in the 1980s provided the template for modern PPP contracts" (Yescombe, 2007:6). PPAs outline the framework for private sector companies to provide the initial infrastructure, in this case for power generation, at their own cost and then enter into an 'off-take' agreement whereby the private company sells the proceeds of the initial investment back to the state for a set time to recoup costs and generate profit. In this most basic arrangement, alignment of objectives is based on the public receiving a service and the private sector receiving a profit to provide this service.

Over the past 30 years, and mostly due to the advent of New Public Management (NPM) in the 1980s, the public sector has looked to supplement their own capacity for service delivery through partnering rather than simply contracting with the private sector, with the PPP becoming the vehicle for this form of procurement. Although the efficient, effective and economic aspects (the 'three E's of Value for Money') of utilising the

private sector were the primary reason for selecting this mode, this was complemented by the use of private finance to supplement government spending and a fresh approach to risk management through sharing certain risks with the private sector partner.

While PPPs represent an opportunity for a significant augmentation of current public service delivery arrangements, their scope is limited by the complicated and cumbersome process of planning and implementation (Burger & Hawkesworth, 2011:5). Even the UK, which has extensively made use of this method of procurement, only sees on average 12% of total annual public capital budget spent on PPP projects. Other countries intimate that they do not envisage spending more than 15% of their total public infrastructure budget in this manner (Burger & Hawkesworth, 2011:5).

By comparison, in SA the percentage of public infrastructure expenditure allocated to PPPs amounted to 5.5% in 2007 (Burger, 2009:88-89). This has since dropped substantially in subsequent years from 6% in 2011/12 to 1.5% in 2016/17. The decline as a proportion of total infrastructure spend is illustrated in Figure 9, below.

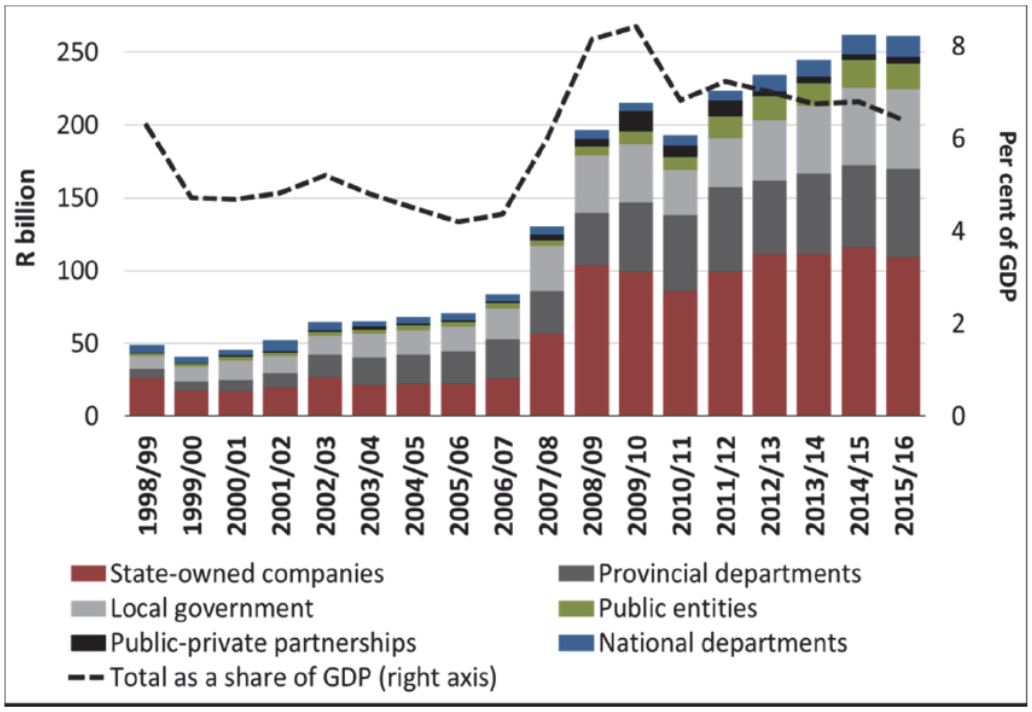


Figure 8: Public-sector infrastructure spending

(RSA National Treasury, 2017:148)

2.3.3 Definitions of Public-Private Partnerships

PPPs are generally considered an alternative mode of providing a public good through contracting with the private sector and whereby the traditional 'one-way' relationship between state and private sector described above is turned into a mutually beneficial relationship through a combination of financial arrangements and risk allocation. Most definitions have the following themes in common: some form of contractual partnership between the public and private sector to deliver goods, services or infrastructure; unique financial arrangements; and some form of risk transfer.

It is evident from the literature that public-private partnerships, although similar in overall intent, take on slightly different meanings depending on their context, be they regional or global. Definitions of PPPs abound, but a conference paper on the use of PPPs in Africa and Asia offers the following fairly concise definition: "A Public-Private Partnership (PPP) is a contractual agreement whereby the private sector is given the right and agrees to provide a public service or public infrastructure traditionally provided by the public sector on behalf of the government." (DIIS, 2015:4).

The World Bank provides an alternative definition for PPPs, using the presence of common elements, namely value for money; government responsibility and accountability; government specification of time, cost and quality; private sector delivering the service or product; the entering of long-term relationships; integrated functions (design, construction, maintenance and operation); shared risk allocation; and whole life approach (World Bank, 2009:9).

"[T]he Organisation for Economic Cooperation and Development (OECD) defines a public-private partnership as an agreement between the government and one or more private partners (which may include the operators and the financers) according to which the private partners deliver the service in such a manner that the service delivery objectives of the government are aligned with the profit objectives of the private partners and where the effectiveness of the alignment depends on a sufficient transfer of risk to the private partners." (OECD, 2008:17).

Burger and Hawkesworth (2011) refer to various regional definitions of PPPs. Korea defines a PPP as a "project to build and operate infrastructure … which have traditionally been constructed and run by government funding … with private capital,

thus tapping the creativity and efficiency of the private sector". The UK uses the definition of "arrangements typified by joint working between the public and private sectors … cover[ing] all types of collaboration across the private-public sector interface involving collaborative working together and risk sharing to deliver policies, services and infrastructure." (HM Treasury, 2008:18). Australia defines a PPP as "relating to the provision of infrastructure and any related ancillary service which involve private investment or financing, with a present value of payments for a service to be made by the government." (Burger & Hawkesworth, 2011:4).

In South Africa, a PPP is defined as: "a contract between a public-sector institution and a private party, where the private party performs a function that is usually provided by the public-sector and/or uses state property in terms of the PPP agreement. Most of the project risk (technical, financial and operational) is transferred to the private party." (RSA National Treasury, 2017:159).

2.3.4 Types of Public-Private Partnerships

One of the advantages of PPPs is the flexibility in how the contracting model may be structured. The choice of options depends on which of the constituent phases are required, namely design, construction, finance, management, operation, ownership and, finally, transfer to the public sector partner. A PPP involves the inclusion or exclusion of any one of these aspects depending on the needs of the project. The various arrangements of these aspects that have evolved to date include the following main types and sub-types (Burger & Hawkesworth, 2011:53):

- Design-Build-Operate (DBO) or Design-Build-Finance-Operate (DBFO)
- Build-Own-Operate (BOO)
- Build-Develop-Operate (BDO)
- Design-Construct-Manage-Finance (DCMF)
- Buy-Build-Operate (BBO)
- Lease-Develop-Operate (LDO)
- Build-Operate-Transfer (BOT)
- Build-Own-Operate-Transfer (BOOT)
- Build-Rent-Own-Transfer (BROT)

- Build-Lease-Operate-Transfer (BLOT)

In South Africa, common types of PPP projects include Design-Finance-Build-Operate-Transfer (DFBOT); Design-Finance-Operate (DFO); Design-Build-Operate-Transfer (DBOT); as well as equity partnership projects and facilities management projects (RSA National Treasury, 2017:171).

Private Finance Initiatives or PFIs are a version of PPP predominantly utilised in the UK where the "government takes bids for and then buys a whole project package", with the government entering into a long-term contract with the successful bidder to provide the service (Guardian, n.d.). The novelty of this type of PPP is that it involves considerable use of private finance for the initial infrastructure investment (construction) while the government pays for the service during the off-take period, which could be in the order of 30-50 years, and during which the private company established to provide this service has a chance to recoup its initial investment and generate a profit.

PFI projects typically also make use of an arrangement specially created for the purpose of delivering the product or service. This structure is termed a special purpose vehicle (SPV) and is, in essence, a contractual arrangement or company set up with the various actors (public and private sector entities) listed as partners and shareholders in the enterprise (Burger & Hawkesworth, 2011:53). This unique entity is created as a response to the critical success factors (CSFs), which will be investigated in more detail later. PFIs have been extensively used to deliver health, education and infrastructure projects in the UK.

2.3.5 Why and When to Use Public-Private Partnerships?

Burger (2009:83) notes quite plainly that the decision to deliver public services via a PPP is generally premised on preferring to harness "the perceived efficiency of the private sector [rather than the] inefficiency of the public sector". In the context of the developing world, Banzon, Lucero, Ho, Puyat, Quibid and Factor (2014:3-6) expand this slightly to include capacity benefits in terms of PPPs "being utilized to meet

developmental goals of many countries" as well as efficiency where projects delivered by partnering with the private sector are "designed to minimize costs while improving performance".

Smith (2010:91) notes that PPPs are most often adopted to:

- "reduce costs and generate efficiencies";
- "ensure the delivery of services of a high standard";
- "facilitate risk transfer from the public sector to the private sector";
- "improve the performance of the public sector and assist in public sector reform"; and
- "create innovation in the delivery of custodial services and support the development of new ideas".

Li and Akintoye (2003:3) note that PPPs offer a "long-term, sustainable approach to improving social infrastructure, enhancing the value of public assets and making better use of taxpayer's money". Further benefits are also noted:

- "Enhanc[ing] government' capacity to develop integrated solutions;
- Facilitat[ing] creative and innovative approaches;
- Reduc[ing] the cost to implement the project;
- Reduc[ing] the time to implement the project;
- Transfer[ring] certain risks to the private sector partner;
- Attract[ing] larger, potentially more sophisticated, bidders to the project; and
- Assess[ing] skills, experience and technology".

(Li & Akintoye, 2003:7-9).

A synthesis of the above benefits can arguably be grouped under the following themes: improved service delivery; value for money; risk transfer; and higher quality of products or services.

In terms of when to use PPPs, it is generally accepted that they are most commonly associated with large public infrastructure projects where the scale justifies the

additional investment in time and effort associated with the rigorous planning phase. In the developing world, however, this is only part of the reason. Much of the decision to enter into PPPs depends on the ability, i.e. capacity, of the public sector to deliver a service given its internal constraints.

> *"Governments in developing countries increasingly look to … PPPs as a means to expand coverage, improve quality and ensure efficient delivery of a range of services."* (DIIS, 2015:4)

In developing countries the use of PPPs is generally due to two main reasons: lack of public finance available (state revenue) and lack of specialist public officials (human capital) to plan and implement service delivery projects efficiently and effectively (Akintoye, 2009:138). However, without sufficient policy instruments and internal officials to properly develop, implement, monitor and manage PPPs, the risk of failure or exploitation, i.e. corruption, can be high. Farlam (2005:i) notes that although this method of delivery may increase service delivery, the results in Sub-Saharan Africa over the last 15 years have been considerably mixed.

In a local review of PPPs in the delivery of healthcare services, Shuping and Kabane (2007) note the following objectives of a public-private interaction (PPI) of which a PPP is one typology:

- Public sector leveraging private finance to strengthen the public sector;
- Sharing of scarce resources between the sectors to maximise benefits for the broader population;
- Improvement in the quality of services rendered; and
- Promoting equitable allocation of resources.

(Shuping & Kabane, 2007:152)

In a paper on the relative merits of PPPs in delivering healthcare services, Banzon, et al. (2014:25-26) produce a decision tree to aid in the decision-making process. This tool

relies on the following factors: what it is that needs to be fixed, scale, who is to oversee the project, the extent of the oversight required, and the delivery options (concession or design-build-operate-deliver).

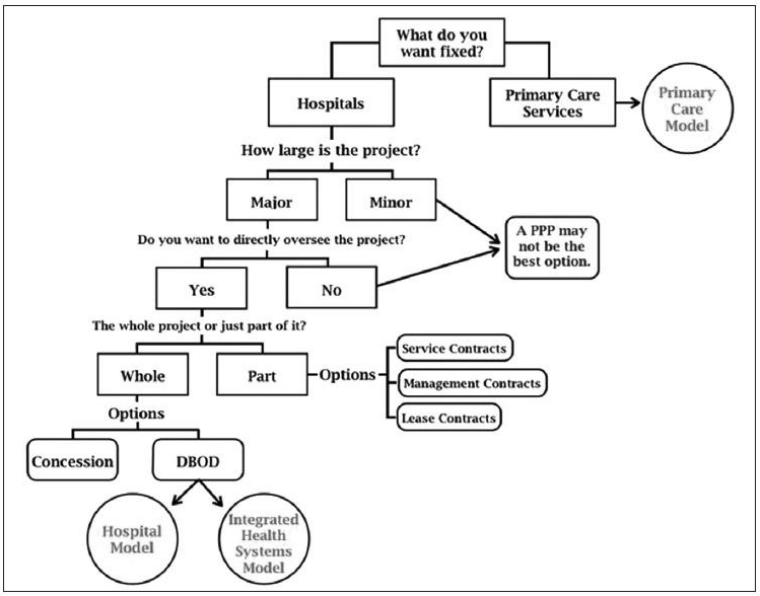


Figure 9: PPP decision tree for stakeholders

(Banzon, et al., 2014:26)

Linking back to capacity, the decision of who is to directly oversee the project is used as a key decision-making criterion, noting that a PPP may not be a good idea if the government partner is unwilling or, more critically, unable to directly oversee it.

Minnie (2011:518) raises an interesting dual aspect, somewhat of a 'catch 22', in the debate around internal public sector capacity, noting that while "it seems that a PPP is most useful where the public sector is failing to provide a public sector need for which a market exists", this is countered by the statement that "a PPP would not be a good idea if there is a lack of financial management skills in the public sector". This is an important aspect in the context of this report that requires consideration. If the very reason for entering into a PPP is because the state does not have the specialist resources to deliver services, it cannot be assumed that entering into a PPP arrangement without adequate capacity to plan and manage the process is going to allow for efficient and effective delivery. Although Minnie (2011) singles out financial management skills as

a requirement, this can also be said of specialist officials skilled in procurement, project management and construction to ensure that PPP projects are carefully planned and implemented, as well as that critical public sector oversight is maintained at all points in the process. Failure to ensure the above could lead to project failures or deficiencies for the public sector in terms of value for money.

This raises the next question of which projects to implement. In the UK, the identification of projects for PPPs is based on the following criteria:

- "major capital investment is required";
- "the nature of the service allows outputs to be clearly defined, and risk allocation between the public and private sectors can be made and enforced";
- "the capital value of the project exceeds GBP 20 million so that procurement cost is not disproportionately large relative to the size of the project";
- "the technology involved is stable and not subject to fast and frequent change"; and
- "planning horizons are long, and the project is foreseen to operate into the long term"

(HM Treasury, 2008:19, cited in Burger & Hawkesworth, 2011:38)

Locally, having already been established as being relatively uncomplicated and stable in terms of typology, the implementation of a programme of new school projects over a long-term period lends itself to implementation via a PPP.

There are other value-added benefits. Suttie and Taylor (2010:129;132;137-143) note that the use of PPPs in schools in the UK has driven a modernisation of the model for new facilities, particularly manifesting in the Building Schools for the Future or BSF programme. This aspect of PPPs links back to one of Smith's (2010:91) observations for the reason for PPPs, namely to create innovation in delivery and developing new ideas.

> *"To increase the PPP project pipeline, the National Treasury is considering ways of streamlining the implementation of such partnerships and at the same time, reduce the time it takes to complete project planning."*
>
> (RSA National Treasury, 2017:162)

The South African National Treasury has developed a regulatory framework (through the Public Finance Management Act) and created the PPP unit (recently incorporated into the Government Technical Advisory Centre or GTAC) to promote, regulate and monitor PPPs in SA. This unit has seen sporadic attempts to implement projects, but the list is currently too fragmented to be considered a strategic approach to delivery through this procurement model. It is anticipated that more effort will go into ensuring that PPP projects are readily promoted and integrated into the delivery of vital and strategic government projects and programmes instead of being selected in a one-off or standalone fashion. It is to be noted that, to date, PPP projects have been implemented in the provision of "hospitals, transport and roads, tourism and head office accommodation" but not education facilities (RSA National Treasury, 2017:171).

2.3.6 Criticism of Public-Private Partnerships

Ismail, Mabuza, Pillay and Xolo (2014:573) note the PPP model "is seen as a superior alternative to other financing methods, as both government and the private sector share the risks involved" based on the following advantages:

- "Eas[ing] the strain on the government's balance sheet;
- Introduc[ing] competition when bidding for infrastructure projects takes place;
- Restructur[ing] the public sector by embracing the private sector capital and practices; and
- Achiev[ing] greater efficiency than traditional methods of providing public services."

(Ismail, et al., 2014:574).

However, the same authors also list the following disadvantages:

- "Transaction costs associated with PPP contracts are normally high and this discourages many small potential service providers from participating in the bidding process;
- Lack of a well-developed capital market can limit the development of a viable PPP market;
- Inappropriate risk transfer rais[es] the perceived risk to investors … resulting in a high cost of capital; and
- PPPs hinder accountability, as PPP costs to the government are not reflected on the government balance sheet."

(Ismail, et al., 2014:574)

Delmon (2011:3) notes three issues that have negative consequences for the effective delivery of public services through PPPs:

1. PPP projects are often prepared in a hurry with little attention given to proper planning and a sufficiently detailed feasibility study.
2. PPP projects are often implemented as standalone projects disconnected from wider strategic goals and an over-arching policy framework.
3. The role of government is critical in ensuring that project implementation is effective, carefully monitored and flexible enough to handle changes or conflicts.

Delmon (2011) also notes that there is no one-size-fits-all approach to PPPs, citing that although there are various basic frameworks or types of PPPs that have evolved, it is not sufficient to simply assume that a PPP implemented in one environment will yield the same results in another where conditions may differ. What is apparent is that there are various critical success factors (CSFs) that need to be addressed to provide the framework for an effective PPP and that these often need to be tailored to suit the desired outcome. This is most pertinent in the UK where the public has grown increasingly wary of the local PFI contracts in recent years. This is firstly due to the

lack of transparency involved around how project financing was structured and, more recently, due to the failures of several projects and contractors involved in these schemes leading, very recently, to a moratorium on PFI projects (Davies, 2018).

Critics of PFI schemes are by no means new to the scene, with concerns being raised by various commentators over the past decade (Pollock & Price, 2010; Monbiot, 2010). Chief amongst concerns is use and alleged abuse of state funds in value-for-money terms and the corporate governance (or lack thereof) in administration both on the part of private companies and public sector actors engaged in these initiatives. What is apparent is that the role of government highlighted by Delmon above in engaging with the private sector to ensure that the interests of the public are put first is an essential element for successful PPPs, with catch-nets and corporate governance matters remaining paramount at all phases in the process right from inception and planning through to procurement and implementation.

2.3.7 Public-Private Partnerships in the South African Context

> *"South Africa has all the right ingredients for a successful PPP programme. It has a simple but user-friendly regulatory framework, well-developed financial and capital markets, a tradition of efficient private sector service provision, and considerable infrastructure and basic services backlogs."*
>
> (Michael Schur as quoted in RSA National Treasury PPP Unit, 2001b:2)

Fombad (2013:12) notes that although SA has a strong regulatory framework for PPPs and high-level political support for their implementation, the successful conclusion of many PPPs initiated by various state institutions falters due to a lack of leadership at project level and lack of capacity on the part of the public sector.

To this end, the National Treasury established the Government Technical Advisory Centre (GTAC) to provide "public finance management through professional advisory services, programme and project management and transaction support [also]

promot[ing] public sector capacity building through partnerships with academic and research institutions, civil society and business organisations" (GTAC, 2015a).

With Treasury Regulation 16 for PPPs at national and provincial level having only come into existence nine years earlier, by January 2009 the PPP unit noted that 18 PPP deals had already achieved financial closure (USAID, 2008:7). A further nine years later (August 2018), GTAC lists 25 projects as having achieved financial close, with 89 PPP projects registered with their unit in various stages of inception, feasibility and procurement (GTAC, 2018). It is notable that the number of projects that achieve financial close form a small fraction of the number of projects initiated. One would assume that there would be some attrition, but not at the rate described: less than a third of PPPs initiated in SA achieve conclusion.

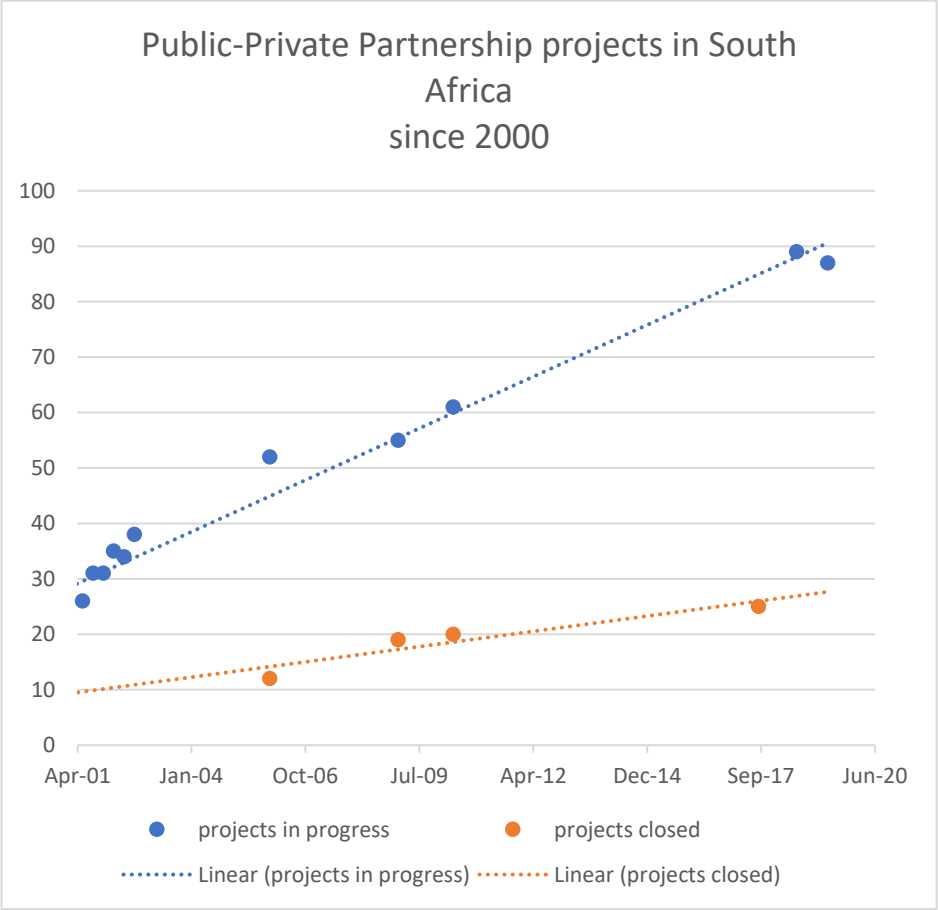


Figure 10: Public-private partnership projects in South Africa since 2000

(by researcher from data gathered from RSA National Treasury PPP unit's periodical "PPP Quarterly" issued intermittently between 2001 and 2020 available from the GTAC website: www.)

The illustration above charts the number of projects in progress against the number of projects that achieved financial close. The figures are based on data gathered from the rather sporadic PPP Quarterly published by the National Treasury's PPP unit. Although there is a lack of data from years 2011-2016 the trends are fairly clear: the number of projects proposed consistently outnumber the projects closed by a ratio of approximately 3:1. This discrepancy does little to warm the hearts of PPP advocates, with the risk of sinking considerable funds into a project with a 33% success rate not seeming particularly palatable to most risk-averse public sector project managers.

A further reason for concern amongst advocates for large infrastructure projects, typically the mode for PPP procurement, are the significant costs variances, typically associated with delays (late completion). The table below gives an indication of the scale of the projects and degree of delays associated with some of the largest infrastructure projects SA has completed over the last two decades.

Table 3: List of significant public-private partnerships or publicly financed/guaranteed infrastructure projects experiencing cost overruns

Project	Construction Completion Date	Procurement Type	Initial Budget	Final Cost	Cost overrun
Gautrain Rapid Rail Link	2012	PPP	R25.1bn	R30.5bn	21%
Kusile Power Station	Partially complete (project ongoing)	Corporate finance with government guarantees	R90bn	R121bn	34%
Medupi Power Station	Partially complete (project ongoing)	Corporate finance with government guarantees	R33.6bn	R105bn	213%
Gauteng Freeway Improvement Project (e-tolls)	2013 (phase 1), phases 2 and 3 ongoing	Corporate finance with government guarantees	R6.3bn	R90bn	1329%
Transnet's new multi-product pipeline	2017	Corporate and public finance	R11.1bn	R23.4bn	111%
OR Tambo International Airport	In progress (estimated completion 2020)	Public finance	R5.2bn	R8.5bn	64%
De Hoop Dam	2014	Public finance	R7.9bn	R20bn	153%
2010 FIFA World Cup Stadia (combined)	2010	Public finance	R8.1bn	18.4bn	126%
N4 Toll Roads	1997	PPP	R2bn	R3bn	50%
Standard Bank Building (Rosebank)	2013	Private sector finance and corporate finance	R1.1bn	R2bn	82%

(Note: Table is combined from separate tables in the reference text)

Source: Ismail, et al. (2014:579-581)

While not all PPPs, the projects above are prone to the same factors vital for success, notably value for money, affordability and the ability and capacity of the public sector to adequately manage and administer the contracts to minimise cost-overruns and delays. Risk transfer, a critical element of PPPs, appears to not have taken this into consideration in a satisfactory manner and the public sector seems unable to pass this risk onto the private party in the contract usually due to poorly structured contracts or poor project management by the public sector client body (Ismail, et al., 2014:583-584).

2.4 CRITICAL SUCCESS FACTORS

The subject of critical success factors (CSFs) forms a major part of the body of knowledge available on the subject of PPPs. This is due to the planning phase being so important to successful implementation of a PPP, and the identification and assessment of CSFs therefore forming a critical component of this phase. As PPPs vary so widely in type and scope depending on the need, it is essential to understand precisely which themes require appropriate coverage before being formalised into a contractual relationship. For this reason, successful implementation relies on a thorough analysis of CSFs in their many dimensions. This process requires "detailed analysis and planning as well as high levels of technical expertise in areas such as financial and economic analysis, commercial contractual law, procurement, budgeting, engineering and construction, investment due diligence and project management." (DIIS, 2015:4).

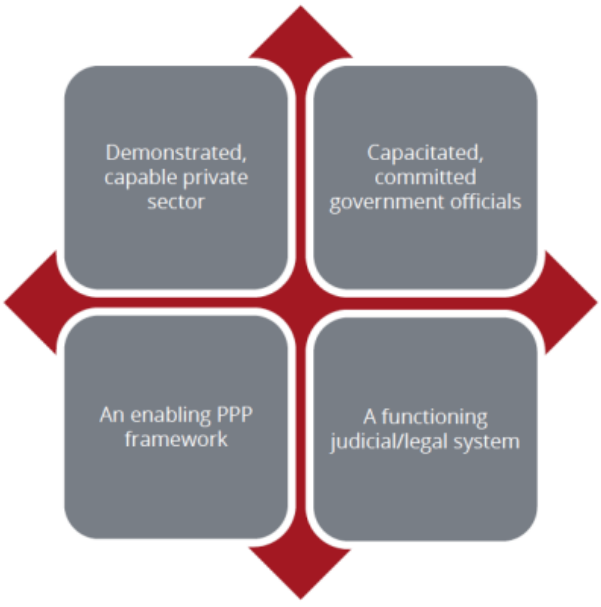


Figure 11: What is needed to ensure successful public-private partnerships

(DIIS, 2015:5)

Before delving into finer detail, it is worth noting that CSFs are subject to various methods of classification. Some sources have identified and grouped CSFs under broad

generic headings (DIIS, 2015; Delmon, 2011; Hardcastle, Edwards, Akintoye & Li, 2006), while others prefer more specific classifications on the premise that grouping may dilute their specific relevance, and in some case go into extensive detail (Minnie, 2011; Burger & Hawkesworth, 2011; Osei-Kyei & Chan, 2015; Babatunde, Opawole, Akinsiku, 2012).

While many texts refer to a wide range of CSFs, it is apparent that there are some common themes. A report by the Danish Institute for International Studies (DIIS, 2015), draws considerably from experience in Sub-Saharan Africa and Asia, referring to CSFs under the following themes: "a demonstrated, capable private sector, capacitated, committed government officials; an enabling PPP framework and a functioning judicial/legal system"; the importance of balancing public and private financing arrangements; "managing risk"; "ensuring a positive local impact"; and "citizen engagement" to ensure genuine buy-in by all stakeholders, both parties to the contract and beneficiaries (DIIS, 2015:5-9).

Delmon's PPP guide for policy-makers (2011) notes the following CSFs (identified as chapters and subsections of the guide) as critical to a successful PPP: careful project selection, extensive viability study, government regulation and monitoring, transparency and anticorruption, asset life-cycle consideration, flexibility to ensure that changes may be incorporated as conditions vary, financial arrangements carefully addressed to suit the needs of the project, consideration of appropriate risk allocation (with significant detail presenting the various types of risk), appropriate form and structure of contract and, finally, appropriate project implementation.

Hardcastle, et al. (2016, cited in Babatunde, et al., 2012:215-216) list the following key groups with relevant sub-groups: "effective procurement" in terms of transparency, competition, good governance, committed public agency, social support, shared authority between public and private sectors, and realistic cost-benefit analysis; "project implementation" in terms of a favourable legal framework, project feasibility, risk allocation and sharing, commitment on the part of both public and private sector actors and good private consortium; "government guarantee" in the form of both a public financial commitment and political support; "favourable economic conditions" in terms of macroeconomic stability and sound economic policy; and finally "available financial

market" in terms of suitable and adequate private financial resources in the market to support the private sector actor/s.

A review of PPPs in Nigeria (Babatunde, et al., 2012:223) reveals the following CSFs: "competitive procurement process, thorough and realistic assessment of the cost and benefits [i.e. value for money], favourable framework, appropriate risk allocation and risk sharing, government involvement by providing a guarantee, political support, stable macroeconomic condition, sound economic policy and availability of suitable financial market".

A review of studies on CSFs by Osei-Kyei and Chan (2015:1342-1343) across 27 publications on the subject identifies 36 CSFs and ranks them according to prominence. The following are the top five in descending order: "appropriate risk allocation and sharing"; "strong private consortium" (appropriate capacity and quality to deliver); "political support" (support from within the public sector to promote and drive the project); "public/community support" (acceptance and understanding by the public, media, civil society, etc.); and, finally, "transparent procurement".

In the South African context, a few authors have dived into CSFs. Minnie (2011:491-514) identifies a comprehensive list of 43 CSFs with the intention of providing a 'one-size-fits-all' tool to navigate PPP procurement methodology. For brevity, Minnie's CSFs could arguably be grouped under the following headings: leadership (especially among the public sector partner); willing partners: aligning goals for mutual benefit; balancing power relationships; transparency and accountability; performance management, monitoring and review; governance; clear contract management; cost management; stakeholder engagement; effective communication; flexibility and adaptability; resource management (human, public, private and financial).

In a lessons-learnt presentation utilising various local health PPPs as case studies, the following critical success factors (CSFs) are raised (Marawa, 2015:3-4): financial sustainability (affordability); regulatory and institutional framework; adequate skills, experience and capacity of public officials; adequate integrated planning and management of PPPs; period of concession agreements and flexibility; and need for an exit plan. In a similar investigation into the enablers and barriers of PPPs in a healthcare co-location project in the semi-rural Eastern Cape, Ricks, van Rooyen, Gantsho and ten Ham (2013:297;300) identify the following CSFs: adequate budget (affordability);

delegated decision-making on the part of the public sector manager, leadership, attitude, support from authorities, perseverance and commitment (all of which fall under political will); good communication and relationships based on honesty and trust (goal alignment); and adequate skills (capacity).

Burger and Hawkesworth (2011:50) include the following CSFs: addressing risk in terms of identification, measurement, allocation/transference, scale and acceptance by the private partner (risk analysis and transfer); addressing competition in terms of market demand; the relative benefits of whole-of-life contracts (incorporating construction and operations); the degree to which quality and quantity of the service to be delivered can be measured and dealing with potential trade-offs; the role and degree of innovation required; public sector skills availability for operation; expected degree and rate of change to the technology needed for the project; and degree of flexibility in output specifications required by the public partner.

The scope of this chapter will focus on the key CSFs which, through an appreciation of their inter-relatedness or interdependence, can be demonstrated as linked to the achievement of the delivery of public education infrastructure in the current context. The CSFs are:

- Affordability
- Value for money
- Risk transfer
- Leadership
- Goal alignment
- Governance

These will be detailed in the following sections.

2.4.1 Affordability

> *"It is tempting to think that if we bring private finance to the party, we will be able to afford more expensive champagne. Of course this is wrong – a PPP may shift a financing requirement from the public to the private sector, [but] … [i]n none of these cases do we increase the quantum of services that the economy can accommodate; rather we change the structure of the accounting and perhaps the locus of the obligation to pay. If we are serious about public-private partnerships, then we have to be serious about our commitment to accessible services, for all. And so affordability has to be a cornerstone of our planning."*
>
> (Trevor Manuel, Minister of Finance, Cape Town, December 2000, as quoted in RSA National Treasury PPP unit, 2001a:1)

The European PPP Expertise Centre defines affordability in its PPP guide quite simply as the "capacity to pay for building, operating and maintaining the project" (European Investment Bank, 2015a). Allied with affordability is an assessment of how the project is to be paid for with the guide differentiating between two revenue streams: the 'user-pays' model, where users are levied a usage charge or fee (in the case of a concession), or an 'authority-pays' model, where government is levied a usage charge by the private operator, such as a monthly or annual instalment to provide the services required.

Another perspective is that projects that are deemed more expensive than what is allowed for in the budget are deemed unaffordable (OECD, 2008:38). While this may appear obvious, governments are often unaware of the budgetary implications that some projects place on the fiscus in the long-term, particularly large infrastructure projects that run over multiple years, as government forecasting is typically limited to the year ahead (OECD, 2008:39). The South Africa National Treasury makes a three-year outlook (the medium-term expenditure framework or MTEF) mandatory for all national and provincial finance departments to ensure that funding allocations are not limited to just the coming year and that financial commitments to multi-year projects or programmes are made explicit.

PPPs are often defined by the fact that they utilise alternative sources of revenue (typically private debt or equity) to provide the financial resources necessary for implementation. The APMG Training Guide for PPP procurement (APMG International, 2018) suggests the following questions be asked when testing the affordability of a PPP project:

1. Can the government make a long-term financial commitment commensurate with the cost of the project during the proposed off-take period? Alternatively, is there opportunity for the costs to be recovered through a revenue generation aspect of the project, i.e. user charges?
2. If the answer to the above is 'no' then is there an innovative solution to make the PPP project affordable? I.e. can 'synergistic commercial development opportunities' be harnessed?
3. Even if there is a facility for a long-term financial commitment by the public sector, are the short-term cash flow requirements taken into consideration? I.e. Can government afford the often significant short-term capital injection required for the construction phase? If not, then private financing opportunities may need to be considered to supplement the short-term shortfall, i.e. private debt or equity.

PPPs are very rarely fully privately funded as the cost of borrowing money in the private sector is generally higher than that of the public sector due to additional lending costs (interest) levied by private investors and commercial lenders. Therefore, PPPs are often financed through a combination of public (initial capital investment) and private funding (debt or equity in the project). Affordability is further enhanced when there is the possibility of recovering costs through a revenue-generating aspect during the operating period, as in the case of a concession. The link to risk transfer is implicit and the private sector partner takes on the risk of recovering user charges in a concession (demand risk) or, where private debt or equity is involved, ensuring the project is brought to and kept at the specified operational standard timeously and efficiently.

Given the constraint of finite government budgets, a project or programme that exceeds the budgetary provision is often perceived as a good candidate for a PPP as the financing or alternative revenue generation capacity of the private sector may appear

attractive in creating the facility to make a project affordable. However, it would be an oversight to assume that this is indeed the case in the authority-pays model, with this aspect having become a primary source of criticism, particularly in the UK where there has been a moratorium on new PFI projects since 2018 (Davies, 2018).

Bearing in mind that the public or user pays for the service in some manner or form, either through taxes or user charges, it would be unwise to draw the conclusion that the private sector can simply supplement public funding provisions: either way someone has to pay the piper. In the UK the public disapproval of projects procured in this manner is based on the so-called 'off-book' nature of financing arrangements where critics have decried the lack of transparency regarding the government's degree of exposure to PFI contracts (Davies, 2018). Commentators have also harshly criticised the lack of public disclosure of the finer details around contracts procured under the PFI facility and the unknown extent of the public sector's exposure and, when failures occur, they lay the blame squarely on the obtuse and misunderstood nature of these contracts (Pollock & Price, 2010; Monbiot, 2010). In South Africa this concern is to some degree mitigated where PPP projects, for which registration with the National Treasury's PPP unit is mandatory, are disclosed in the National Treasury's annual budget review (see Figure 12 below).

Table E.1 List of PPP projects concluded in South Africa

Project name	Government institution	Type	Date of close	Duration	Financing structure	Project value R million	Form of payment
Transport							
SANRAL N4 East Toll Road	SANRAL	DFBOT	Feb-1998	30 years	Debt: 80% Equity: 20%	3 200	User charges
SANRAL N3 Toll Road	SANRAL	DFBOT	Nov-1999	30 years	Debt: 80% Equity: 20%	3 000	User charges
SANRAL N4 West Toll Road	SANRAL	DFBOT	Aug-2001	30 years	Debt: 80% Equity: 20%	3 200	User charges
Northern Cape fleet	Northern Cape Dept of Transport, Roads and Public Works	DFO	Nov-2001	5 years	Equity: 100%	181	Unitary payment
Chapman's Peak Drive Toll Road	Western Cape Dept of Transport	DFBOT	May-2003	30 years	Debt: 44% Equity: 10% Govt: 46%	450	User charges and guarantee

Figure 12: Excerpt of a public-private partnership project list from the South African National Treasury's 2017 budget review

(RSA National Treasury, 2017:160)

2.4.2 Value for Money

> *"A PPP project yields value for money if it results in a net positive gain to society which is greater than that which could be achieved through any alternative procurement route."*
>
> (European Investment Bank, 2015b)

Value For money (VFM) is generally defined in terms of the presence of three elements: "economy, effectiveness and efficiency" (Diamond, 2005:162, cited in Burger & Hawkesworth, 2011:51). As a performance measure for government, this is an essential component of ensuring that public funds are appropriately utilised to deliver public goods and services. It is therefore essential that VFM be a key driver in the selection, planning and implementation of PPPs.

Burger and Hawkesworth (2011) conduct a thorough discussion on the critical aspect of VFM in PPPs, noting "[a]ny project, whether it is a PPP or traditionally procured project, should be undertaken only if it creates value for money" (Burger & Hawkesworth, 2011:34). In the report, VFM is identified as a major driver in terms of requiring approval from various countries' respective ministries of finance (Burger & Hawkesworth, 2011:16). The report suggests that a VFM assessment conducted early enough in the procurement process should be included to decide between going the PPP or traditional infrastructure procurement (TIP) route.

Burger (2009:83) cites three types of efficiency: "allocative efficiency, i.e., the use of resources so as to maximise profit and utility; technical efficiency; and X-efficiency, i.e., the prevention of a wasteful use of inputs". The private sector is acknowledged as the main driver of the latter two types of efficiency, with experience of the PFI schemes in the UK eliciting a 10-20% cost saving vs. traditional infrastructure procurement (Burger, 2009:83).

Li and Akintoye (2003:7-8) corroborate the above findings, describing value for money in terms of cost reduction and citing savings of PFI projects in the order of 17-20% over TIP projects, but adding that another benefit is reduced implementation time. Time

savings are cited as due to a concurrent approach to design and construction, i.e. fast-track project management; incorporating financial incentives to encourage early delivery; reduction in procurement time by only having to tender once due to packaging or bundling multiple projects into a single PPP; and discouraging scope changes or variations, thereby reducing cost overruns and delays (Li & Akintoye, 2003:7-8).

According to reports on PFIs and PPPs in the UK and Australia, VFM is linked to the following factors: "risk transfer, output-based specifications, the long-term nature of contracts, performance measurement and incentives, competition, and private sector management expertise … innovation, greater asset utilisation and integrated whole-of-life management" (OECD, 2008:37).

In terms of the evaluation of VFM in the UK, the process involves a quantitative assessment (a 'VFM test') of the estimated cost of the proposed PPP against a Public Sector Comparator or PSC (HM Treasury, 2008). In South Africa, the PPP Manual includes a similar VFM test during phase 2 (feasibility study) in order to achieve Treasury Approval: 1 (RSA National Treasury PPP Unit, n.d.:vi). The feasibility study is intended to ascertain if a PPP is indeed the best value option to deliver the project or whether traditional infrastructure procurement (TIP) should be considered instead.

The HM Treasury (2008:39-40) notes that a key driver for VFM is competition during procurement. Maintaining competition between suppliers is therefore a prerequisite to the assurance of VFM and the approval and success of a PPP. Due to the large scale of the projects generally contemplated for PPP procurement and the comparable time and effort putting together bids, it is inevitable that there may be a natural attrition with regard to bidders who no longer sense the effort is justified or sense that the probability of success is limited. In order to ensure VFM under these circumstances it is essential that competitors remain engaged in the process in order to maintain competition. An innovation in the bid process on the Chapman's Peak Drive PPP (where procurement took nearly two years) included the requirement for bidders to obtain bid bonds to ensure commitment to the process (Rintala, Root, Ive & Bowen, 2008:150).

Burger (2009:83) identifies a primary mechanism for VFM being the shifting of risk to the private sector partner, as transferring risk is a way to encourage the private sector partner to seek out efficiencies. Risk transfer is therefore intrinsically linked to VFM,

with Burger (2009:90) adding that "risks must be allocated between the public and private partners in such a manner that … VFM is maximised".

2.4.3 Risk Transfer

> *"PPPs are a way to transfer some risks to the private sector and to finance, develop and implement a range of projects spanning from smaller social services-oriented projects to large-scale physical infrastructure projects. With decreasing funding from traditional donors, developing countries see PPPs as a new tool for mobilising resources to bridge the infrastructure gap and achieve broader development goals."*
>
> (DIIS, 2015:4).

"Risk transfer is at the heart of structuring a PPP project" (Yescombe, 2007:242). Yescombe (2007) notes that there are limited ways that risk may be managed and allocated: "risks can be retained by the Public Authority"; they may be "transferred to and retained by the Project Company" (the private sector partner); they may be "transferred to the Project Company, but then reallocated to third parties [via] subcontract[ing], insurance [or] having them guaranteed by Sponsors"; or, lastly, and in the case of concessions, they may be "transferred to end-users through the Project Company having a right to impose higher Service Fees" (Yescombe, 2007:242-243).

The following top five risks in PFIs in the UK were identified by contractors, clients and lenders in a study by Akintoye, Taylor and Fitzgerald (1998, cited in Hardcastle & Boothroyd, 2003:40):

1. "Design risk;
2. Construction cost risk;
3. Performance risk;
4. Risk of delay; and
5. Risk of cost overrun."

Lesser risks were cited relating to operational matters (beyond the scope of this report), as well as those associated with payment, procurement, site-specific issues (use, selection and availability) and, finally, legal and market-related risks.

While the risks identified above could be considered fairly self-evident to most construction professionals, the evaluation of risk in a PPP is arguably more critical due to the focus on the allocation of risk, one of the most significant advantages of PPPs when compared to TIP. Burger and Hawkesworth (2011:39-40) identify the following critical criteria for the evaluation of risk:

- Defining, identifying and measuring risk;
- Transfer of risk;
- Quantifying the size of the risk;
- Identifying the willingness to accept risk (degree of risk aversion); and
- Competition levels: either *for* the market or *in* the market.

Delmon (2011:95) identifies two aspects of risk that must be managed by the public-sector partner. Firstly, not to 'cram' risk on the private sector partner as this could be costly and inefficient and, secondly, to allow for changes in the risk profile and risk allocation during the various stages of the project. Regarding the allocation of risk, it is generally accepted that the entity best able to manage the risk should be the one to accept it (Delmon, 2011:115). Risks that lend themselves to being managed by the public-sector partner include political risk: changes in the legislative of regulatory frameworks; performance risk: creating conditions for the contracting, procurement or financial arrangements in the contract; and social risks: the influence of stakeholders and beneficiaries. Risks that lend themselves to being managed by the private sector partner include completion risk during design and construction; and operation risk, in the case of a Design-Build-Operate (DBO) arrangement.

Yescombe (2007:243-244) repeats the call to not shift too much risk onto the private sector partner, noting that this could create a situation where the private sector partner becomes so indebted that they become unable to effectively free up their cash reserves

leading to catastrophe should lenders/investors lose their appetite to make further funds available and ultimately risking the collapse of the private partner.

Some risk categories require a shared allocation whereby neither party may be able to accept the full impact in the event of a risk being realised. These include financing risk: the public-sector's ability or willingness to provide funding and the private sector's ability or willingness to provide the necessary guarantees or insurances; currency risk: the public sector's exposure to foreign financing and the private sector's exposure to the foreign market to provide the goods, materials or labour; offtake risk: the degree to which the public sector will pay to use the facility from the private sector operator (in the case of a concession) or the degree to which the private partner is able to generate revenue from the asset (i.e. a toll road); and, lastly, environmental risks either due to legislation and regulation or negative environmental impacts during construction or operation. These risks will need to be balanced based on each partner's exposure to the risk or potential impact, with risk allocation forming a critical part of any PPP arrangement at inception and requiring constant review during the various phases (Delmon, 2011:114-115).

McConnell (2010:248-249) identifies the following risks during construction: "delays to the works", "contractor insolvency" and "poor project management". Although these risks are common to delivery under traditional infrastructure procurement, the implications of who manages the risk in the case of a PPP fundamentally changes how these risks are mitigated. For example, delays typically borne between the client and contractor in TIP where the public agency has a vested interest in service delivery and may allow some leeway in terms of applying penalties for late completion are, in the case of a PPP, a matter between the contractor and lenders who have a different appetite to accept the costs of delays, these costs eating into their return on investment. This principle is similarly applied in the case of contractor insolvency and poor management.

One of the proposed solutions to manage risk is to conduct a full risk analysis (a risk matrix), identifying the various risk types through the various stages of the project, allocating the risk accordingly and proposing mitigation measures in advance (Yescombe, 2007:246-247). It is also important to allow for flexibility and re-allocation when critical milestones are achieved that reflect the level of risk associated and the agent best able or equipped to manage it. McConnell (2010:253-255) notes that,

although traditional risk mitigation may be implemented through contractual arrangements such as insurances, financial incentives for good performance and delay damages in the event of poor performance, alternative strategies should also be included in the vehicle, such as performance management and dispute resolution. Performance management could involve the use of project monitoring and early identification of potential risks, while dispute resolution should include more informal dispute resolution techniques, such as adjudication and mediation, before entering more formal methods, such as litigation, which may be timeous and costly and ultimately lead to adverse delivery of the project.

Burger and Hawkesworth (2011:41-42) identify a major risk to PPPs that is of particular relevance to the context of this report, namely the "availability of public sector skills", noting that a PPP may be a "better option if the government does not itself possess the requisite skills to construct and operate the project" but that "if the government then opts for a PPP, it will nevertheless need skilled staff to monitor the private partner and to manage its own responsibilities and risk". This 'catch 22' highlights a critical irony: on one hand the shortage of critical skills is a motivating force for entering into alternative procurement arrangements to supplement the skills shortage required to expand delivery, while, on the other hand, there is a need for specialist skills to successfully initiate, plan, manage and monitor the contractual relationship between public and private partners.

The implications of the above on VFM are significant: without sufficiently skilled internal personnel to manage a profit-motivated private partner, the public sector partner could find itself on the receiving end of the risk to the achievement of VFM, which is one of the prime reasons cited for entering into a PPP in the first place. For developing countries, this aspect is a critical factor in the selection of PPPs to supplement public service delivery due to the shortage of in-house specialists. In South Africa, where there is a critical shortage of construction project managers and construction industry engineers, this is a considerable factor in the consideration of a PPPs as a procurement option.

2.4.4 Leadership and Political Will

Minnie (2011:491-492) identifies leadership as a significant factor when the public sector partners with the private sector. The sub-themes of leadership relate to "overcom[ing] institutional inertia" (resistance to change), driving the PPP (being a "strong champion"), encouraging involvement and limiting interference through "visible political leadership", "leadership from top management" (top management support), clear roles and "responsibility of function", and "competent [and] motivated management (Minnie, 2011).

The subtext to the above is recognition that the public sector has more of a role to play in this theme than its private sector counterpart. This bias can be attributed to the numerous public-sector actors involved in the initiation, planning, implementation and monitoring of a PPP project. The opportunity for political interference is amplified by the general scale and profile of the projects undertaken under this method of procurement. The private sector, on the other hand, is not motivated by political means, with profit-generation instead being the over-riding factor uniting the various private sector entities involved in the partnership.

Fombad (2013:21-22) notes that political will and political stability are both critical to a project being consistently promoted by the public sector partner. Political will is critical due to the need to make decisions at a level befitting the strategic importance and high value of the project. Further, the scale of the projects also tends to create a significant degree of public scrutiny, leaving political actors accountable for their promotion. Lastly, political will is required to maintain accountability at project level, making political actors able to ensure that responsible officials drive projects to meet deadlines and expenditure or budget targets. Political stability is equally critical as large-scale strategic projects, such as those delivered via PPPs, are generally strategic in nature and linked to policy decisions made by the prevailing political regime.

It is thus logical to expect changes in leadership to bring about changes in the trajectory of public service delivery. This is detrimental to any long-term project that straddles election periods, with their survival resting on new political incumbents. Any shift in political agendas in service delivery can have terminal consequences for projects, especially if they are at a sensitive stage, i.e. during procurement. The scale and complexity of PPP projects may be considered a risk by new incumbents, especially

considering the large sums of public funds that are committed, which may be considered better used elsewhere. An example is a pharmaceutical distribution PPP project in the Eastern Cape that fell prey to a late change in executive leadership at the provincial Department of Health (Aiello, 2014:20).

A critical aspect of leadership is the need to consider the requirements of each partner in a PPP. To this end, steering a PPP through the various phases of planning, design and implementation requires both strong internal leadership and political will of public sector actors involved, as well as strong leadership by private sector partners to ensure the goals and values of all parties are recognised, and balance maintained at all points in the process.

Being able to lead and steer PPPs also relies heavily on the ability of public sector managers, elected as PPP project officers, to successfully manage the projects they are assigned to lead. Project management expertise is critical in successfully administering the project and contract. An investigation by Rwelamila and Phungula (2009) into the competence of public sector agents to manage projects notes that officials "do not possess sufficient skills and abilities to manage [the agency's] projects" (Rwelamila & Phungula, 2009:453). The report cites a lack of focus on project management as a proficiency, laying the blame with public implementation agents' culture, structure, and senior management who are neither able nor willing to recognise the need to ensure that operational officials acquire the necessary skills to manage projects effectively. The result is an inconsistent and generally ad-hoc approach to project implementation.

2.4.5 Goal Alignment

Connie, Wong and Chikolwa (2010:1) note the imperative of identifying differing values between public and private sector partners. The former spans an incredibly broad range of stakeholders, while the latter is primarily concerned with shareholders' needs.

Public value is of prime consideration for public agencies, noting that governments "use market forces to protect public values rather than opposing and trying to alleviate such forces which companies adopt" (De Bruin & Dicke, 2006:725, cited in Connie, et al., 2010:2). Public value is noted as governing relationships between government and society, service delivery and the provision of infrastructure. Civic engagement is critical

to the identification of issues and balancing the needs of stakeholders. Lastly, regulating the interests of the private sector while creating conditions for efficient market allocation through competition is a complex balancing act between the public and private sector partners.

Private value is generally accepted as based on incentives created through the realisation of profit. Market-based resource allocation via the competition is critical to driving efficiency, effectiveness and economy. The presence of these three ideals underpin the concept of value for money. However, these values can have negative societal effects: profit maximisation through downsizing and cutting corners can lead to job losses and lowered quality (value-engineering), which are at odds with public sector values (Connie, et al., 2010:2).

While encouraging a private partner to deliver value is based on the realisation of profit, regulating a partner motivated by profit often relies on having applicable legislative frameworks in place and the need to ensure that adherence and compliance is maintained. Compliance is one aspect of a larger whole: governance.

2.4.6 Governance

> *"In South Africa which has had a protracted mass struggle for democracy and better conditions of life on the base of a poorly performing economy there have been high expectations for change even in the conditions of mass unemployment. There are enormous pressures for delivery and resistance to cost recovery."*
>
> (WRC, 2003:72)

Considering the scale of infrastructure spending, it is of vital importance to ensure that public funds, especially when utilised for infrastructure, are used in a manner that is fair, equitable, transparent, competitive and cost-effective (Watermeyer, 2005:19). Making use of a PPP therefore requires adequate checks and balances being in place to ensure that the public partner can trust that the private partner will supply services

without taking advantage of the means to do so, i.e. state assets or public finance. It remains incumbent on government to ensure that PPPs are appropriately managed not only to ensure delivery, but also to ensure that public funds are not misused and value for money remains a prime factor in the transaction. Transparency and accountability are generally considered public-sector responsibilities, and government needs to ensure that procurement is fair, reasonable, transparent and that the opportunities for corruption, unethical conduct and nepotism are limited (Minnie, 2011:497).

A key aspect of good governance in procurement is transparency, which is considered achieved when "the terms upon which the procurement process are to be conducted and the criteria upon which any decisions are to be made are properly documented and made widely available; the eventual procurement award decision … is made publicly available as are the reasons given …; [and] it is possible to verify that the documented procedures and criteria were indeed applied" (Watermeyer, 2005:19).

Despite the perception that developing countries may be on the back foot in terms of developed and established legislative controls, regulations, accepted accounting practices and capacity in the civil service to appropriately implement and monitor compliance, this does not mean that lack of governance is unique to their context. Developed countries also suffer from this deficiency. However, it is well established that private sector companies looking to maximise revenue for shareholders or themselves are incentivised to seek out insufficiently regulated markets for the provision of public services where access to public funds may be exploited without interference from the government, thereby optimising revenue (WRC, 2003:71).

South Africa's National Planning Commission (NPC) is acutely aware of the lack of technical expertise available in the public sector vital to the adequate implementation of the governance frameworks and policies in place. Without this expertise the government is insufficiently equipped to ensure that the principles of governance and transparency live up to the expectations set by the public and politicians alike (Watermeyer, Wall & Pirie, 2013:21). While institutional reforms, such as the creation of a separate Supply Chain Management (SCM) framework for the delivery and maintenance of infrastructure and the introduction of the Infrastructure Delivery Management System or IDMS, allow for a streamlined approach to delivery, the constant outflow of skilled civil servants able to provide human capital to manage these

processes is of critical concern (Watermeyer, Wall & Pirie, 2013:21-25). The NPC report cites "a looming crisis in the generational reproduction of professional expertise as the ageing cohorts continue to leave the system" (NPC, 2011:23).

2.5 CONDITIONS IN THE EXTERNAL AND INTERNAL ENVIRONMENT

The previous section addressed the critical success factors leading to a successful partnership between public and private sector. This section will now investigate whether the current context is conducive to this partnership. To this end, conditions in the internal and external environments need to be evaluated to confirm if the theoretical aspects can be linked to effective implementation. This section will investigate failures in the delivery of schools both internationally and locally, the reasons for which include many of the factors critical to the success of PPPs in the local environment.

2.5.1 Learning from the United Kingdom: Private Finance Initiatives

The extensive use of PPPs in the UK over the last two and a half decades using the Private Finance Initiative (PFI) model provides a good statistical analysis of the value of public-private partnerships (PPPs) compared to traditional infrastructure procurement (TIP). McConnell (2010:247) notes that, in terms of performance against similar TIP projects, 69% of PFI projects were delivered on time, compared with 63% for TIP. In addition, 65% of PFI projects were delivered as per agreed cost against 54% for TIP.

While PPPs have generated much in the way of extending public service delivery globally, it is also worth noting the shortcomings of this mode in order to understand what causes are linked to failures. The PFI model in the UK, used extensively to provide health, education and transportation infrastructure, has recently been found unsatisfactory for the provision of public infrastructure when it comes to value for money. On the lesser end of the scale it costs the UK taxpayer dearly for underperformance and, at the extreme end, halts service delivery when failures occur.

The criticisms stem from two aspects identified as critical success factors, namely lack of flexibility and an overly complex contracting and delivery model (Davies, 2018). The recent collapse of construction firm Carillion, which contracted extensively with the UK public sector under this model, forced officials and politicians to completely rethink the PFI model. PFI failures in recent years include lack of progress on healthcare projects in Liverpool and Birmingham, causing the contractor to suffer irreparable financial loss; the Scottish schools' disaster where structural defects caused the closure of numerous facilities; the failure of the major contractor on the London Underground, costing the UK taxpayer £160 million to cancel (this in the context of saving £225 million if left unaddressed); and eight school projects being constructed under the Building Schools for the Future or BSF programme where fire safety issues were discovered after a kitchen fire at one of these schools. The BSF programme was also found susceptible to a lack of flexibility when a state-of-the-art school built in Brighton in 1999 had to close just six years later due to lack of demand. With 22 years left to run, the PFI contractor pocketed £4.5 million (twice the initial investment) after the local council was forced to cancel the contract (Moore, 2007).

Considering that 860 PFI projects have been delivered during the period of 1992 to 2010 at a total capital value above £50 billion (McConnell, 2010:247), the above failures could arguably be seen as statistically inconsequential in the grander scheme; however, due to the large scale of PFI contracts, when a failure occurs the singular impact has far-reaching consequences both in terms of cost to the taxpayer and in terms of the effect on service delivery. While the above failures were largely due to poor planning and lack of flexibility through inadequately structured contracts, the case study below on the Edinburgh Schools disaster of 2016 illustrates a prime example of a lack of oversight on the part of the public sector, which is of particular relevance to this report.

When 17 schools in Edinburgh were temporarily closed in 2016 after major structural failures occurred, an independent inquiry was commissioned and undertaken by the Chartered Institute of Public Finance and Accountability (CIPFA) to investigate the cause of the problem (CIPFA, 2017). While the results found technical issues in the quality assurance process, the underlying reason laid with the procurement process which did not adequately provide for independent quality control during construction – the ultimate blame being laid with the public bodies who contracted the works.

The report cited issues with quality and poor management of the building contract. It went into significant detail on the financial incentives to produce the projects at least cost, laying the blame squarely on the PFI system placing priority on private sector profit and not public sector delivery and quality (Brooks, 2016; Carrel, 2016; Carrel & Brooks, 2016; Small, 2016; Perraudin, 2017).

2.5.2 External Conditions: The Local Construction Industry

Local conditions in the construction industry are by no means stable. The effect of the global economic crash in 2008/9 had an adverse effect on the local industry that is still being felt nearly ten years later. In addition to this, trust in the local construction sector is at an all-time low, with collusive activities being brought to light through the recent findings of and rulings by both the Competition Commission and the judicial system. These events have cast significant aspersion on the industry, making clients wary in both the private and public sectors.

The construction of new stadia in SA for the 2010 FIFA World Cup was an example of how few contractors able to deliver the project can collude to drive prices up for mutual benefit. Contractors met to coordinate the submission of uncompetitive bids in order to ensure that they each had a slice of the work and that that slice was driven up to an agreed profit margin of 17.5% (Nicholson, 2013). This was considerably above industry norms where profit margins during this period generally fell in the range of 2.8-5% (Peyper, 2016; Venter, 2013), the estimated rand value of this mark-up cost the SA public in the region of R14 billion (Steyn, 2015).

This situation has not been limited to short-term ‘hay-making’ during the 2010 FIFA World Cup. The Gauteng Freeway Improvement Project (GFIP) is identified as overpriced by a factor of 321% when reviewed against 11 similar international case studies, with the Gautrain and Lesotho Highlands Water Project rounding out a list of large public infrastructure projects found by the Competition Commission to have suffered the ill-effects of collusion and anti-competitive behaviour (Cokayne, 2016a; Cokayne, 2016b).

> *"The renewed push to crack down on the industry comes as the slowest economic growth since 2009 slashes profits and market valuations for companies including Aveng, Murray & Roberts Holdings and Group Five. The seven-member FTSE/JSE Africa Construction & Building Index has slumped 53 percent over the past two years, Aveng has posted three consecutive annual net losses."*
>
> (Wild, 2016)

The fallout from the above had a significant impact on the local construction industry. Authorities in the public sector have called for a crackdown on collusive activities by reviewing procurement practices (Wild, 2016). Lack of trust in construction companies has also contributed to a downward spiral for conditions in the sector, with the major construction companies posting consistently poor results on the Johannesburg Stock Exchange in recent years. Further, government's reduced spend on infrastructure due to budget cuts from the National Treasury has placed strain on large contractors reliant on these projects. This has led to many of the large contractors scaling down operations to suit the market. However, this has seen the emergence of small- and medium-sized contractors who have taken advantage of the government's move to break up large contracts into smaller ones (Cokayne, 2018). Further impacts on the domestic construction industry, which are claimed to be contributing collectively to a perfect storm, are plunging commodity prices, downsizing and job losses to compensate for the lack of work, an unstable power supply, mining industry contraction, and the brain drain in the industry as specialists who are able to seek opportunities elsewhere or relocate abroad (Hill, 2016).

Minnie (2011) notes the need for "transparency and accountability" for partnerships, specifically referring to "ethical conduct" and "addressing vulnerability to corruption and nepotism" (Minnie, 2011:497). While Minnie refers primarily to the need for these values in the public sector, there is a dual responsibility on the part of private sector partners to similarly internalise these values, a deficiency resulting in the practices and consequences described above. It is obvious that these values cannot simply manifest in a private partner motivated by profit. While checks and balances need to be put in place to ensure that the three elements of value for money (efficiency, economy and effectiveness) are firmly entrenched in the ethos of the partnership, this can be

encouraged by shifting certain risks to the private sector partner and financial rewards for the achievement of targets. There are two aspects to the achievement of this end: (1) agreed partnership arrangements at the outset; and (2) monitoring and evaluation of arrangements to achieve these ends during and at conclusion. Burger and Hawkesworth (2011:36-47) refer to these as the "ex-ante" and "ex-post" VFM assessments.

It is evident from the above that, should the public sector enter into contracts with the private sector in the current environment, significant effort will need to be put into the arrangements to ensure that the public interest is prioritised in terms of value for money, transparency, fairness and accountability. It is not good enough to simply insert 'mutual trust and spirit of collaboration' clauses into contracts, as these are difficult to define and often legally contestable. What may be required is a public sector that is far more explicit in its requirements for fair and transparent contracting arrangements, which could include performance monitoring and the use of compliance-related targets with financial incentives for their achievement or penalties for non-conformance.

2.5.3 Internal Conditions: The Public Service

The skills shortage in the SA construction industry has placed great strain on government departments in which these skills are critically important for the efficient implementation of infrastructure programmes and projects (CIDB, 2007:4). The public service requires skilled internal built environment professionals and procurement specialists to source, contract, engage and administer the services of professionals and contractors required to deliver public infrastructure (Accenture Consulting, 2016:2). This situation is largely mirrored in the private sector, placing further strain on achieving the efficient, effective and economic delivery of public infrastructure.

> *"Lawless (2005) found that there are no civil engineers, technologists or technicians whatsoever employed in 34% of South Africa's local municipalities and 9% of district municipalities. Only one civil technician was employed in 18% of the local municipalities and 9% of district municipalities while 16% of local municipalities and 13% of district municipalities employed only technologists*

> *and technicians under the age of 35. Only 19% of local municipalities and 53% of district municipalities have at least one civil engineer in their employ."*
>
> (Watermeyer & Thumbiran, 2009:2)

The Construction Industry Development Board or CIDB identified an alarming trend in public-sector infrastructure delivery in a practice note titled 'Scaling up Delivery and Accelerating Empowerment' (CIDB, 2006). The challenges identified are two-fold: extensive reliance on traditional infrastructure procurement whereby singular projects are overseen by a "gradually disappearing cadre of skilled staff"; and unbundling strategies aimed at "reducing the size of contract[s] in order to 'spread the sunshine' … [through] target[ing] small emerging enterprises." (CIDB, 2006:2). The results are well summarised in the report, citing "severe work overload for officials" leading to "poor quality end products, rework and delays that add to the burden" with proposed solutions including utilising a "fresh approach to procurement and delivery" and "changing the contracting strategy" (CIDB, 2006:3-5).

> *"Many short-term responses to skills shortages do little to address long-term capacity constraints. Consultants can be brought in to design and build infrastructure, but without in-house technical expertise, provincial and local governments lack the capacity to ensure that the work is done to an adequate standard or to maintain the infrastructure once the work has been completed."*
>
> (NPC, 2011:24)

As an illustration, it is worth reviewing the fairly recent attempt to deliver public schools in the current environment. In 2010, the national government's Department of Basic Education (DBE) instituted a programme to rapidly address school backlogs in various provinces. Entitled the Accelerated Schools Infrastructure Delivery Initiative (ASIDI), the programme involved the rapid delivery of 49 schools across the country, 25 of which were constructed in the Western Cape.

A contemporary report evaluating the impact of the programme tabled the following lessons learnt:

- "Proper project planning is fundamental";
- "Detailed planning and design [is essential] to minimise the possibility of failure";
- "Contract management is crucial";
- Resourcing is critical: additional resources were required to oversee some of the projects; and
- Managing the expectations of stakeholders and beneficiaries is crucial.

(DBSA, n.d.:(a))

From the contractor's point of view, a report noted the importance of carefully considering the context of the project and ensuring that significant partnerships are instituted from the local community and stakeholders to guarantee timeous completion (DBSA, n.d.:(b)). What is disconcerting is the extensive involvement of multiple additional resources drafted to assist in the timeous completion of the project during construction, the subtext being that the original contractor did not have the means (skills, capacity or access to finance) to complete the project at the outset. This casts aspersion on both the contractor's ability to complete the project, as well as a concern that this should have been more thoroughly assessed during the procurement phase. That said, the rapid implementation of the programme caused by undue political pressure may have further contributed to oversights during the process and a certain optimism bias by the various parties involved.

In the Western Cape, the closure of four out of 25 school projects planned as part of the ASIDI programme shifted affected learners to temporary facilities while the projects were investigated (Meyer, 2015). The closures were due to structural failures caused by design errors by the consultant team assigned to deliver the projects. While the blame was laid squarely on the consultant design team, secondary reasons were cited which included the immense pressure to rapidly up-scale delivery to meet the timeframes of the programme and a lack of in-house specialist public works officials to maintain quality oversight of the external consultants. A Standing Committee on Transport and

Public Works' (SCOTPW) report into the failures cited the unreasonable timeframe for delivery as affecting the proper implementation of quality control measures otherwise typically in place. The following detailed concerns were tabled:

- A "lack of specialised structural expertise in engineering in the [government] department, coupled with
- reduced project design specification and documentation, as well [as]
- limited official scrutiny and a lack of verification of engineering Professional Services Provider documents [which] were also contributing factors".

(SCOTPW, 2017:75-76)

Although exacerbated by the stringent timeframe, this case highlights the shortage of in-house capacity within the public service (specialist officials) to ably monitor and oversee the works in the event that delivery has to be rapidly scaled-up.

2.6 CHAPTER SUMMARY AND DISCUSSION

Having identified the advantages, disadvantages and critical success factors of PPPs, as well as undertaken a contextual analysis of current conditions, it is worth pausing to contemplate the combined implications and relevance of PPPs to the scope and nature of this report. Given that education infrastructure in the local context is generally repetitive in nature and fairly unsophisticated in typology, it can be argued that improved implementation should focus on streamlining design and construction through a thorough standardisation process. The building typology requires little in the way of bespoke design, lending it to considerable standardisation of otherwise fairly modular and repetitive elements, i.e. school halls, classrooms, toilet blocks and admin blocks. Within this context of modularity, the informants for variation are limited to site conditions, spatial arrangements to suit the site and scale, with the size of a school being a function of the number of learners requiring accommodation. Schools are fairly unsophisticated and constant in terms of typology; thus the delivery of education infrastructure aligns with the argument for using PPPs – one of the critical success factors being the implementation of a stable technology not subject to rapid change.

Given the above, the critical success factors relating to value for money and risk allocation can arguably be fairly straightforward to achieve. VFM can be fairly simply obtained through the efficiencies of an improved design and implementation process and, given the uncomplicated typology and scope for repetition, private partners may more readily accept the design and construction risks.

That said, there are two constraints that stand in stark contrast: (1) the lack of specialist officials in the public service to specify, oversee and monitor implementation; and (2) the lack of trust that currently exists within the local construction industry. Without sufficient specialist and professional public officials able to manage private partners emerging from a local industry littered with a track record of collusion and anti-competitive behaviour, there is a significant risk to the attainment of VFM: one of the prime drivers for entering into a PPP in the first place.

The above could change quite rapidly in the current environment. Given that large contractors are currently in uncertain economic times there could be a shift in attitude towards capitulation rather than abuse of public procurement processes and projects, and profit-seeking could take a back seat to survival. In this context it is more important to ensure that private sector partners have sufficient resources to deliver and adequate liquidity to accept the allocation of risks and persist in the event of adversity.

Within the context of the risk to VFM, it is important to identify a critical risk that has yet to be considered and one which is borne by the public sector partner alone, namely the more absolute effect of non-delivery of services or infrastructure on which the public desperately depends. In this context, the risk of not achieving VFM could be argued as of lesser import to that of not delivering public services. The consequences of this aspect go beyond simple economic concerns. The social cost of a generation of children without adequate education being an incalculably dire consequence.

At this point it is apt to introduce the regulatory frameworks applicable to the achievement of governance, one of the critical success factors discussed above and, given the situation described above, of critical consideration within the current context. The next chapter identifies the tools at the disposal of the public service to ensure that taxpayers' money is utilised effectively, efficiently and economically – the three hallmarks of VFM.

3: THE LEGISLATIVE AND REGULATORY FRAMEWORK – PUBLIC SECTOR INFRASTRUCTURE DELIVERY AND PUBLIC-PRIVATE PARTNERSHIPS IN SOUTH AFRICA

3.1 CHAPTER INTRODUCTION

This chapter unpacks the regulatory frameworks in terms of two dimensions: (1) regulatory frameworks that pertain to the provision of public sector education infrastructure; and (2) those that pertain to PPP-specific procurement. The provision of public infrastructure in South Africa is governed by regulations pertaining to the management of state assets, regulations specific to the provision of public schools, as well as the infrastructure delivery frameworks aligned to construction industry standards. Identified as a critical success factor in the previous chapter, an enabling framework for the procurement of PPPs is essential for proper implementation. The South African government, recognising the need for this form of procurement as an option for the delivery of infrastructure, has gone to considerable lengths to ensure that PPPs are given an enabling legislative and regulatory framework, as well as to provide resources to promote this form of procurement. Public-private partnerships have already been employed extensively to deliver public services. The RSA PPP unit (a component of the National Treasury) has helped to complete 24 PPPs by 2015 and, at the times, were involved in the implementation of 50 more (DIIS, 2015:4).

> *"Experiences from India, Kenya and South Africa all demonstrate that a solid PPP framework is an essential precondition for successful PPPs."*
>
> (DIIS, 2015:6)

Being a form of government procurement, PPPs are regulated through various levels of legislation relating to financial management, beginning with Section 217 of the Constitution and cascading down through the PFMA to the detailed provisions of Section 16 of the National Treasury regulations. PPPs are given further credence

through the documentation produced and circulated by the National Treasury's PPP unit, specifically created to assist in promoting, offering technical assistance, planning and implementation, monitoring, regulating and reporting on PPPs in South Africa.

Firstly, however, it is important to note that infrastructure delivery relates to immovable assets and, as such, falls under the regulations of the Government Immovable Asset Management Act or GIAMA. Secondly, it should be noted that public schools fall under the regulations of the South African Schools Act.

3.2 PUBLIC EDUCATION INFRASTRUCTURE PROVISION AND MANAGEMENT REGULATIONS

3.2.1 Government Immovable Asset Management Act

The Government Immovable Asset Management Act of 2007 or GIAMA forms the regulatory framework for how state infrastructure at national and provincial level is managed. The Act provides the regulatory framework for relationships and duties of custodians (such the DTPW) and users (such as WCED), as well as the principles of immovable asset planning and management relating to the acquisition, use, improvement and disposal of state infrastructure. PPPs are given specific provision in Section 4(5), wherein custodianship of PPPs is defined (RSA, 2007:7-8).

3.2.2 South African Schools Act

The provision of public school infrastructure is governed by sections 12-14 of the SA Schools Act (RSA, 1996b:10-12). Section 12 sets out who is responsible for the provision of public education infrastructure in a given province, in this case the provincial Member of the Executive Council (MEC) and the relevant while sections 13 and 14 provide the regulatory framework for the ownership and use of immovable property for public education whether on state-owned (section 13) or private (section 14) land.

Understanding the framework pertaining to land ownership for the provision of state schools is particularly significant as this factor is often a critical item in the contracting arrangements for any long-term infrastructure contract such that contemplated in a PPP.

3.2.3 The Construction Industry Development Board

The Construction Industry Development Board or CIDB is a schedule 3A public entity established by an act of parliament to "promote a regulatory and developmental framework that builds: construction industry delivery capability for South Africa's social and economic growth and; a proudly South African construction industry that delivers to globally competitive standards" (CIDB, n.d.; RSA, 2000).

Conscious of the skills shortage in the public sector, the CIDB proposes the following solutions to increasing the efficiency of the resources available in the sector: using a programme approach to project implementation, i.e. bundling similar projects into delivery programmes to increase efficiency through repetition of process; increasing the size of contracts where efficiencies may be achieved through economies of scale; including targeted procurement requirements to ensure micro-level empowerment and development of emerging contractors; increasing the duration of contracts using term contracts or frameworks under which individual projects are issued as work packages; and an emphasis on a systems approach to delivery through comprehensive standardisation of procurement documentation, designs (norms and standards for repetitive or modular elements), as well as pricing, contracting and targeting strategies, all with the aim of increasing efficiency (CIDB, 2006:4-8).

The above has been largely fleshed out in revised procurement options produced by the National Treasury to assist with alleviating the crisis. This involved the creation of the Infrastructure Delivery Management System (IDMS) and the subsequent Standard for Infrastructure Procurement and Delivery Management (SIPDM).

3.2.4 The Infrastructure Delivery Management System

The Infrastructure Delivery Management System or IDMS is a delivery system for public-sector infrastructure that closely mirrors the industry standard, PROCAP, which specifies the delivery of professional services for the various professions engaged in the built environment through gazetted guidelines. PROCAP is based on six stages of professional services, and identifies and aligns the inputs and deliverables required

from project inception through to completion. The IDMS loosely mirrors this process, adding additional stages upfront to handle the strategic phases for long-term planning, budgeting and resourcing, as well as the close out phases involving asset transfer between departments, i.e. between the Implementing Agent and User Department, unique to the public sector (CIDB, 2012).

Any implementing agent considering delivering public infrastructure is obliged to comply with the system in order to achieve the appropriate level of governance (transparency and accountability) expected from public institutions. The most onerous part of the system falls under procurement as this is where the largest portion of the budget is committed. The role of the relevant Supply Chain Management unit is therefore critical to ensuring that effective and appropriate contracting arrangements meet the governance obligations of the institution committing public funds.

The transfer of risk onto a private sector partner is considerably tenuous. Private sector partners are unfamiliar with the checks and balances required and, if this is not made explicit from the beginning, may not allocate sufficient time and resources to duplicate these procurement processes when implementing projects on the behalf of government.

Recently the IDMS has been updated with the One-IDMS framework. This policy framework updates the delivery management system by aligning it to the activities of the International ISO 55000 Standard for Asset Management. The One-IDMS contains additional frameworks for operations and maintenance, as well as introduces the concept of full lifecycle asset management from construction to disposal. Also new to the system is a clearer understanding of portfolio and programme management involving the more detailed activities that go into long-term asset planning, delivery and management.

3.2.5 The Standard for Infrastructure Procurement and Delivery Management

The Standard for Infrastructure Procurement and Delivery Management or SIPDM (RSA National Treasury, 2015) provides the infrastructure procurement policy framework for the South African public sector. This policy document sets the stage for the introduction of new ways of contracting with the private sector in South Africa.

Although generally aligned with traditional infrastructure procurement (TIP), it allows for more efficient implementation of alternative contracting arrangements to increase capacity under the client-contractor model.

While SIPDM allows for a degree of risk re-allocation it does not allow for total allocation of risk onto a private sector consultant or contractor. The state is still referred to as the employer, meaning that ultimately all risk is the responsibility of the government entity involved in the contractual relationship. Retention of ultimate accountability is implicit in all public-sector transactions. Given the lack of resource capacity to monitor the various risks involved in public sector infrastructure delivery, this is an impossible task in practice and one which is being slowly eroded as skilled professionals leave the service without replacement. The inability to shift whole risks to the private sector in a partnership arrangement is the single biggest shortcoming of this model.

The National Treasury recently revoked SIPDM and replaced it with the Framework for Infrastructure Procurement and Delivery Management or FIDPM. This framework aligns infrastructure delivery to the ISO 55000 Standard for Asset Management, and is promoted by the One-IDMS.

3.3 SOUTH AFRICAN PPP PROCUREMENT REGULATIONS

3.3.1 The South African Constitution

Of pertinence to PPPs is the chapter framework for procurement which has its origins in the Public Finance Management Act, which in turn finds its origins in the Constitution, Chapter 13 (RSA, 1996a:110). Section 217 of the Constitution provides the basic framework for procurement which has a direct effect on PPPs, referring to the needs for “a system which is fair, equitable, transparent, competitive and cost-effective.” (RSA, 1996a:112). The finer detail of this section is manifested in more detail in the Public Finance Management Act.

3.3.2 Public Finance Management Act 1 of 1999 (PFMA)

> *"To regulate financial management in the national government; to ensure that all revenue, expenditure, assets and liabilities of that government are managed efficiently and effectively; to provide for the responsibilities of persons entrusted with financial management in that government; and to provide for matters connected therewith."*
>
> Preamble to the Public Finance Management Act *(RSA, 1999)*

With its roots in the Constitution, the Public Finance Management Act, or PFMA, forms the regulatory framework for the effective use of public funds. Section 38 (a) (iii) of the PFMA provides the basis for a value-based framework for procurement whereby the accounting officer of a given public department must ensure "an appropriate procurement and provisioning system which is fair, equitable, transparent, competitive and cost-effective" (RSA, 1999:36).

The National Treasury regulations, which are written as a schedule to the PFMA, provide the detailed framework for financial management in national and provincial departments in Section 16, issued in April 2001. These include specific regulations for PPP procurement.

3.3.3 South African National Treasury Regulations and Public-Private Partnership Unit

Added to the PFMA as a schedule in April 2001, Section 16 of the Treasury regulations issued in terms of the PFMA sets out the process for initiation, proposal, procurement contracting, management and variations to be considered in terms of the relationships between the various parties involved in a PPP with an organ of state (RSA National Treasury, 2005:43-47). Created in 2000, the RSA National Treasury's PPP unit has sought to provide the necessary framework to stimulate and regulate this form of procurement in the local context. The main function of the unit is "to ensure that all

PPP agreements comply with the legal requirements of affordability, VFM and sufficient risk transfer" (Burger, 2009:90).

NATIONAL TREASURY'S PPP UNIT: HERE TO HELP

The PPP Unit has both a regulatory and a technical assistance role. The former is derived from Chapter 16 of the Treasury Regulations and requires that all government departments obtain various Treasury approvals prior to the signing of a PPP agreement with the private sector.

The three criteria set by government are:

- Affordability
- Value-for-money
- Appropriate transfer of risk

These stringent tests require detailed feasibility work prior to approaching the market, top-quality procurement processes, excellent contract structuring and negotiations and sound contract management.
Departments and public entities are given support in all these stages by the dedicated PPP Unit, this is part of the Budget Office at the Treasury. The team is headed by Aijaz Ahmad, an internationally experienced PPP transaction advisor and includes professionals with a range of relevant skill and experience.

Figure 13: Extract from PPP Quarterly summarising the support role intended by the Unit

(RSA National Treasury PPP Unit, 2002a:8)

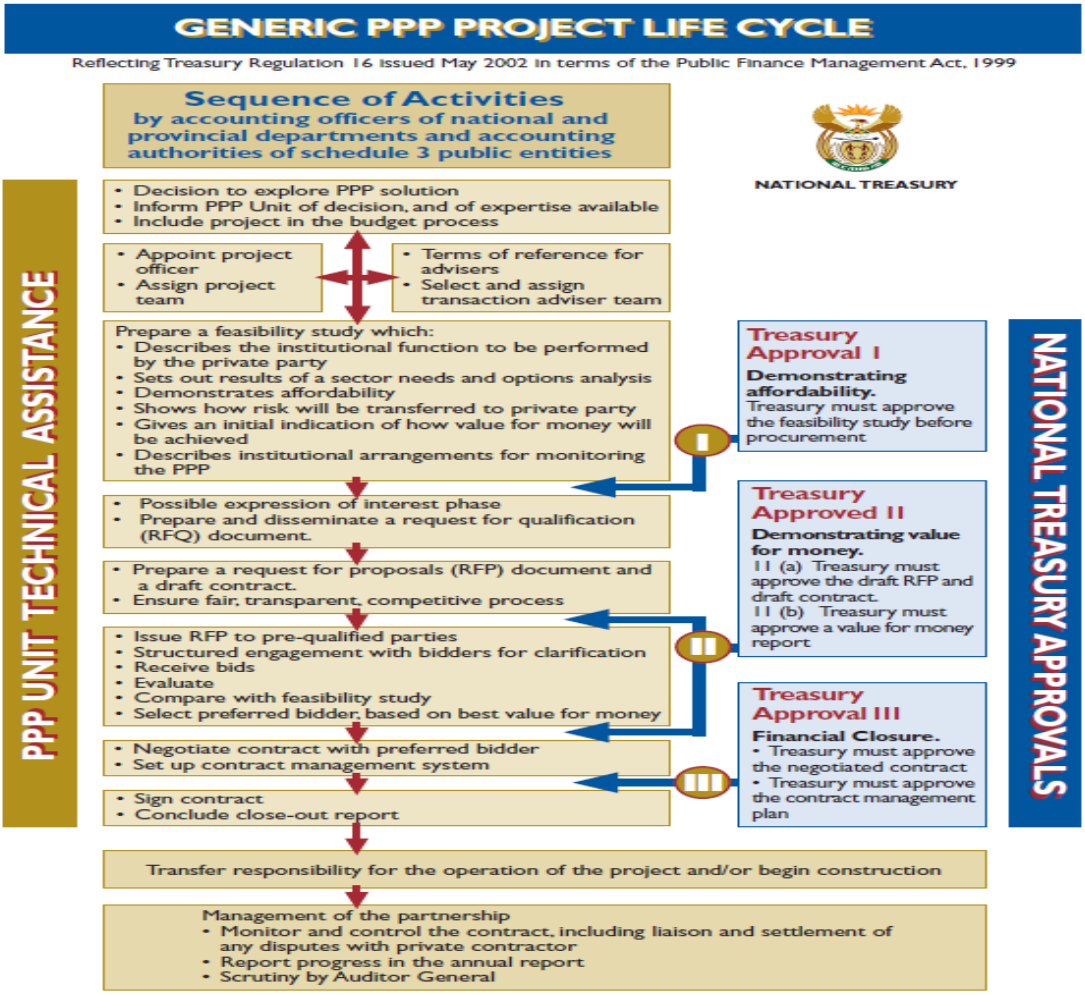


Figure 14: Generic public-private partnership project life cycle

(RSA National Treasury PPP Unit, 2002c)

What is particularly notable for the purposes of this investigation into critical success factors is that the criteria set by the National Treasury as part of the PPP procurement process refers specifically to the needs for affordability, value for money and risk transfer. These three factors are therefore seen as founding principles and essential for the implementation of PPPs in terms of the local regulatory framework.

A 2008 report by USAID on RSA's PPP program notes the following functions of the National Treasury's PPP unit:

- "Develops, formulates and promotes PPP policy;
- Evolve[s] as a dynamic and sustainable centre of excellence for PPPs;
- Drives the flow of PPP deals;

- Gives technical assistance to public institutions through project feasibility, procurement, and management; and
- Promotes an enabling environment for PPPs by: facilitating certainty in a regulatory framework, developing best practices guidelines …, providing training …, disseminating reliable information …, [and] driving black economic empowerment."

(USAID, 2008:3)

As part of the last point, the PPP unit has developed a fair amount of literature: an online manual (RSA National Treasury PPP Unit, n.d.), a public-relations document (RSA National Treasury, 2007), as well as a presentation by a senior advisor working within the unit that provides an overview of the regulatory frameworks, PPP projects implemented to date and an outline of the related success factors and challenges (Gqoli, n.d.). These documents are intended to assist organs of state in the investigation into, and initiation and implementation of, PPPs by ensuring alignment with the Treasury regulations. They also offer technical assistance and training for government officials in all three spheres of government.

While most of the literature on PPPs is produced by the unit themselves, Burger (2009:82-96) gives an independent overview of the origins and roles of the dedicated PPP unit of the RSA National Treasury created in 2000. Burger notes achievements to date, comparisons in terms of performance and exposure with international precedent (specifically the UK PFI model) and, lastly, the challenges associated with this model in SA given the local skills crisis and lack of implementation capacity. More recently, the PPP unit has been absorbed into the Government Technical Advisory Centre (GTAC) where specialists are available to advise and provide the expertise necessary to increase government's capacity through the use of PPPs amongst other forms of procurement (GTAC, n.d.).

Criticism of the PPP unit is based on its limited mandate or scope. The unit focusses almost solely on the phases of initiation to financial close of a PPP and very little during the operational phase or off-take period (OECD, 2008:112). This focus is reinforced by the PPP unit's structure where there is just one section devoted to project monitoring

and reporting (GTAC, 2015b). This is not to say that the unit does not take monitoring and evaluation into account, the case studies' section of the GTAC website indicates that the unit commissions independent reviews of various projects, providing links to the documents via the web page (GTAC, 2015c).

3.3.4 National Budget and an Overview of Exposure to PPPs

RSA National Treasury provides an overview of all committed PPP projects either in the planning or already committed and in operation in the annual Budget Review, the 2017 document, for instance, listing all PPP projects in significant detail (RSA National Treasury, 2017:159-163). The document quantifies national government's exposure to PPPs with the intention of ensuring the public is appraised of the exposure to various projects committed at national and provincial level. As noted in the previous chapter, SA's use of PPPs has decreased significantly in recent years (see Section 2.2.2). The National Treasury intends to reverse this trend, noting partnerships "with local and international development finance institutions to explore the development of alternative infrastructure funding" (RSA National Treasury, 2017:162).

3.3.5 Division of Revenue Act

A review of the available frameworks for budgeting would not be complete without mentioning the Division of Revenue Act or DoRA. The Act is promulgated annually to identify the extent of funding assigned to various grants allocated at national, provincial and local government levels. Of relevance to this project are the two revenue grants specific to funding public school infrastructure: the Education Infrastructure Grant (EIG) and the School Infrastructure Backlogs Grant (RSA, 2019:130-132;146-148). The former is the funding mechanism for the general construction, replacement and maintenance of public school infrastructure in a given province, while the latter is a special provision to eradicate inappropriately constructed education facilities.

3.4 THE EFFECT OF REGULATORY FRAMEWORKS ON INFRASTRUCTURE DELIVERY

Wall, Watermeyer and Pirie (2012) review the implications of supply chain management prescripts on infrastructure procurement and delivery. Conscious of its context, the proposal is that policy frameworks should not restrict delivery to a point where implementation is constrained or adversely effected, noting solutions to the challenges as setting clear timelines and achieving a balance of governance and compliance within the relevant context of the delivery scope.

Burger and Hawkesworth's survey into VFM in PPPs (2011:47) states "officials in a significant number of countries clearly noted that the rules in place impede attaining value for money by creating incentives to prefer traditional infrastructure procurement over PPPs." The cost of compliance to legislation and regulations is often seen as a barrier to the achievement of one of the major motivators for PPPs in the first place: increasing the capacity for service delivery. This bias towards TIP is further compounded by public officials' unfamiliarity with the contractual relationships between public and private partners in PPPs. Public sector officials view a PPP as relinquishing too much control over the governance aspects of the contract and putting them at risk in the event of failure.

While it is all well and good to attempt to fix the systems in place, this does not address the underlying cause of the issue: a lack of specialist officials available in the public sector to plan, promote and implement infrastructure projects. A review of available literature finds remarkably little on the implementation of skills development programmes or encouraging learners to consider a career in the construction sector. A report by global management consulting firm McKinsey (Barbosa, Mischke, Parsons, 2017) notes that the global construction industry is going through a productivity slump when compared to other sectors, but positions "reskilling the workforce" as a solution at a distant number seven, behind such headings as "reshaping regulations", "rewiring contractual frameworks" and "improving procurement and SCM practices". These all purport to fix the processes and systems, but overlook the chronic shortage of human capital available to drive them.

3.5 CHAPTER SUMMARY AND DISCUSSION

Although it is apparent that a sufficiently comprehensive regulatory framework exists for infrastructure procurement with a special provision for PPPs, compliance to the extensive procurement and implementation aspects of developed policies and systems is generally perceived as a constraint rather than an enabler. The irony is not lost on the public sector infrastructure official when contemplating the origins of the IDMS and SIPDM lie in a process intended to streamline and accelerate infrastructure delivery.

Despite the creation of a dedicated PPP unit and a considerable track record of PPP projects in SA, the question remains: why are so few of South Africa's public projects implemented in this manner? One could argue that the primary reason is the skills shortage in the public sector. Although the risk identified in the discussion in the previous chapter relating to regulating a private sector partner emerging from an industry associated with anti-competitive intent may be considered mitigated by the well-developed regulatory framework, without adequate human capital in place to apply the policies the public sector is understandably risk averse. It is further understandable then, when considering the degree of anti-competitive behaviour by the local construction industry in recent years combined with the public-sector skills shortage, that there is a reduced appetite on the part of the government to embark on fairly unfamiliar high-value contracting arrangements, such as PPPs. Within the scope of this project, this is exacerbated by the fact that PPPs remain as yet untested for the provision of education infrastructure in this country.

Another factor contributing to the lack of PPP projects is the reduction in expenditure on public infrastructure with few commitments to large infrastructure projects. Having noted the critical importance of the additional time and effort (and therefore cost) required for proper initiation, planning and procurement of PPP projects, the reduced scale of infrastructure projects in the present environment means that initiation costs have less chance of being recouped with concomitant implications for the achievement of value for money, a central tenet of PPPs.

In summary, considering that the regulatory framework is sufficiently developed to enable the public service to effectively administer the proposed partnership agreements considered by the National Treasury and the presence of a dedicated agency ready to assist in the preparation of PPPs, the only barrier to implementation for education

infrastructure delivery is internal capacity and political will on the part of the public sector to accept potential risks of partnering with private sector partners emerging from an industry desperately trying to shake off an image of profiteering and exploitation.

4: RESEARCH DESIGN AND METHODOLOGY

4.1 CHAPTER INTRODUCTION

As described in the introduction, this chapter introduces the empirical data analysis phase. The chapter will begin by establishing the research problem and the objectives necessary to investigate the research problem in its various dimensions. The three stages of the data collection and analysis phase process will be described in detail and includes a discussion regarding the validity of the findings. The chapter concludes with a review of the ethical considerations and a discussion about research scope and exclusions.

4.2 RESEARCH PROBLEM AND OBJECTIVES

With the effective and efficient delivery of infrastructure being a core objective of public works departments in all spheres of government, it is imperative that due consideration is given to the public service's ability to procure resources required to implement infrastructure projects and programmes. In the current environment this aspect is directly affected by available human capital (internally or contracted) and the applicable delivery frameworks. In the Western Cape, the provincial education and public works department are jointly under pressure to realise their mandates of providing adequate infrastructure, both in terms of quantity and quality, to deliver basic education to all. The challenge, however, is one of increasing the portfolio in the Western Cape to respond to rapid population growth and urbanisation, as well as maintaining the existing portfolio given the public sector's constraints (funding and human capital). With resource-intensive traditional infrastructure procurement (TIP) the mainstay of local public works departments, the public sector is under pressure to investigate augmenting the delivery of public schools with modes that do not rely so much on internal capacity. The urgency to deliver against an increasing backlog leaves the public sector with insufficient time to create new policy frameworks that may unlock new infrastructure delivery modes. The only option left in terms of unexplored procurement modes for public schools is a public-private partnership (PPP).

With the above as the background to the research problem, notably: how can the Western Cape scale up delivery of public education infrastructure using alternate modes? The question being investigated in this research project is, in essence:

- Are PPPs a feasible delivery option for public schools in the Western Cape?

The secondary questions to be answered relate to the feasibility of achieving this end:

- What factors are critical to the success of infrastructure PPPs in the local and current context?
- Are these factors sufficiently present in the current context to provide a suitable environment for the effective delivery of public schools in the Western Cape?
- What can be done to improve the appetite or address any constraints this mode may suffer from should a PPP be considered to deliver public schools in the Western Cape?

This research project involves addressing each of the above three secondary objectives through three distinct stages of data collection and analysis. These stages emanate from the design and methodology described below.

4.3 RESEARCH DESIGN AND METHODOLOGY

A study of PPPs by Osei-Kyei and Chan (2015) found the following research methodologies relevant to the subject: case studies, questionnaire surveys and mixed methods (combinations of questionnaire surveys and case studies). As per the previous section, in order to answer the three secondary questions listed above it is evident that a triangulated study is most applicable, using a combination of the methods described by Osei-Kyei and Chan (2015).

The proposed research methodology for this report therefore begins with a critical review of infrastructure PPPs that have been implemented in South Africa to date, with

this period being the last twenty years since the formation of the PPP unit. While PPPs have yet to be tested in the provision of education infrastructure in South Africa, they have been used to deliver toll roads, public transport and health infrastructure. The case study analysis also forms the first step in identifying which factors may be applicable to the current context in the provision of public education infrastructure. The case study reviews provide preliminary critical insights into the successes or relative importance of various factors that may have influenced the outcome of the PPP projects in the case studies, insights vital in validating the findings of the subsequent empirical data analysis stages. A review of the available literature found that there are sufficient academic sources on the six local case studies which provides a sufficiently broad base to cover the local PPP paradigm while also further reinforcing the validity of the findings.

The second stage, the collection and analysis of quantitative empirical data, includes a quantitative study on the prevalence of CSFs identified in the case studies via an online questionnaire. Respondents are members of relevant public and private organisations that may have been or may become engaged in this manner of infrastructure procurement and delivery due to their background or current position in their respective organisations. Initial respondents were selected from a narrow set of colleagues and consultants in the field known to the researcher with subsequent respondents recruited through a snowball sampling process. Data collection involves a combination of an online survey questionnaire and semi-structured interviews to obtain quantitative and qualitative data, respectively. An online survey questionnaire was selected to obtain quantitative data as this is deemed the most efficient method of obtaining measurable quantities to a pre-defined set of questions. The survey questionnaire attempts to measure two dimensions of the identified CSFs, namely the perception of the importance of the various CSFs (to attempt a ranking) and the prevalence or achievability of the same CSFs in the current context. The design of the questionnaire is premised on obtaining an index of each of the factors identified in the case studies based on the respondents' opinions. Babbie and Mouton (2001:153-154) refer to the use of Likert scaling to develop simple indexes for response categories based on a range of incremental responses between two extremes, i.e. 'strongly agree, agree, disagree, strongly disagree'. Assigning each of these responses with a number, i.e. from 1-4, allows responses to be measured, and an aggregate of the responses can be used to obtain an index of the category under review. For the survey questionnaire a modified

Likert scale permitted measurement of the opinions of each participant relative to the factor under consideration. Further, the resulting aggregate responses could then be used to create an index for each factor and allow the factors to be ranked. Respondents were asked to first score the importance of ten factors pertaining to PPPs on a scale of 1-5 with 1 = 'not at all important', 2 = 'minimally important', 3 = 'somewhat important', 4 = 'very important' and 5 = 'critically important'. The questionnaire then asked respondents to score the same ten factors based on their perceived prevalence or achievability in the current environment again on a scale of 1-5, 1 = 'not at all achievable/prevalent', 2 = 'minimally achievable/prevalent', 3 = 'somewhat achievable/prevalent', 4 = 'very achievable/prevalent' and 5 = 'completely achievable/prevalent'. The two indices for each factor were then analysed in terms of the difference between their relative importance and perceived prevalence or achievability in the current context. The results allowed the researcher to rank the factors requiring more attention (where there was a significant variance between the two attributes of each factor), as well as assisted in focussing the investigation during the next phase where qualitative data was collected to investigate the underlying causes and effects of the factors on the proposed delivery of public schools via PPPs.

While understanding the relative importance and presence of the ten factors influencing PPPs was the primary focus of the questionnaire, secondary questions were also included which were intended to understand the perceptions in the industry relating to the applicability of public schools as a delivery objective, as well as the proposed or preferred role of finance in the transaction. Finally, a general question regarding the respondents' readiness to get involved in a PPP was included to ascertain the degree of interest in this delivery mode in the current environment.

The third and final phase involves the collection of qualitative empirical data through semi-structured in-depth interviews with subject matter experts and key stakeholders in the field. Depth interviews were considered appropriate for this stage as they are concerned with understanding the origins of participants' beliefs or opinions on a given subject (Babbie & Mouton, 2001:291). Using this method, the intention is to understand and qualify the results of the quantitative data phase using qualitative insights from specialists in the field. While this primarily intends to investigate the root causes and possible solutions to the issues facing the implementation of a PPP for public schools

in the current context, it also lends an air of validity to the quantitative data collected in the previous phase.

Similar to the online questionnaire, initial recruits were from the researcher's contact base with subsequent interview subjects identified through a snowball sampling approach. The interviews were conducted in a semi-structured mode in order to classify the data into themes based on the various factors measured in the survey questionnaire. These themes form the sub-headings in the relevant findings chapter. The data collected in the interviews is intended to identify precisely what may be done or needs to be addressed in order to correct the imbalances or shortcomings in the factors evident from the quantitative data set.

4.4 DATA COLLECTION

The first phase of critical data analysis (content analysis) involved gathering case study research conducted on South African PPP projects since 2000. The case study research on local PPPs was found in academic and construction industry journals, as well as on the case study section of the GTAC website (GTAC, 2015c). The factors evident in each case study were both quantified and analysed in terms of their qualitative dimensions, i.e. their influence on the PPP: positive or negative. These factors were then tabulated and used to determine which factors required identification and investigation in the next two phases.

Empirical data was collected using two methods: (1) through an online questionnaire; and (2) through a series of semi-structured depth interviews. A total of 16 respondents / participants took part in the empirical data collection phase. Respondents / participants either elected to complete the questionnaire, take part in the depth interviews or a combination of both. This added the complication of having to carefully separate any overlaps to ensure that the data retained its integrity in preparation for the analysis phase. The online questionnaire garnered ten responses, while the semi-structured interviews were conducted with ten participants. Results of the survey provided quantitative data regarding the importance and prevalence of the ten factors (CSFs) identified from the case study chapter. The semi-structured interviews yielded

qualitative data from current PPP specialists and role-players in the local environment, public and private sector alike.

The choice of respondents / participants for the questionnaires and interviews required careful consideration. As the field of PPPs is fairly specialised and specialists are few and far between, it was decided to start with recognised PPP proponents (identified from the PPP units known to the researcher), asking them to identify subsequent potential respondents / participants. Babbie and Mouton (2001:167) refer to this as snowball sampling, noting that it is "appropriate when the members of a special population are difficult to locate". As such, a small set of initial respondents / participants were identified and approached to participate in the questionnaire and interviews. Initial selection was based on the researcher's access within the direct work environment (the Western Cape government), with subsequent respondents / participants identified through the abovementioned snowball sampling, i.e. suggestions from the previous participant. While it is noted that the data set is small (ten questionnaires were completed and ten interviews conducted) the set is considered representative for two reasons: firstly, it reflects the small scale of knowledgeable PPP specialists in South Africa prepared to give their opinions on the topic. Secondly, it contains a diversity of views as public sector PPP specialists, implementing agents representatives and financial specialists provided input; private sector transaction advisors, contractors and financiers participated in the data collection; and academics in the field conducting research on PPPs in the South African context also provided valuable insights, opinions and direction to other contemporary and contextual research on the topic.

The intention with the online questionnaire is to obtain quantitative results to measure the perception of the importance of the critical success factors identified in the case study chapter, as well as measure the perception of the state or prevalence of the same CSFs in the current environment. Combining the two measurements permits a comparative gap analysis between the importance of the various factors and their relative presence or prevalence in the current context.

The interviews were conducted to gain insight into the underlying causes or reasons for the findings in the quantitative analysis. Interviews were conducted in a semi-structured manner using a series of open-ended questions based on the results of the quantitative

analysis. The semi-structured nature of the interviews allowed for a comparative analysis based on themes identified in the survey.

4.5 VALIDITY

The critical data analysis based on a series of case studies, which is the first part of the study, includes six PPP projects delivered in the PPP mode within the last twenty years. The analysis of these projects represents a significant body of knowledge not only because they have been delivered in South Africa under the current prevailing regulatory framework, but also because they refer to contextual factors that have critical bearing on the effectiveness of the delivery mode. Each case study was analysed using either primary data from participants in the actual PPP in question (public and private sector alike) or literature from academic or construction industry sources. As such, the data analysis is considered sound and valid.

The empirical data collection includes a relatively small data set (n = 16). This small size in no way invalidates the findings as the number of PPP specialists with sufficient experience in the country is incredibly limited. This is, in and of itself, a finding of the research as well as a concern should this mode be considered for future projects.

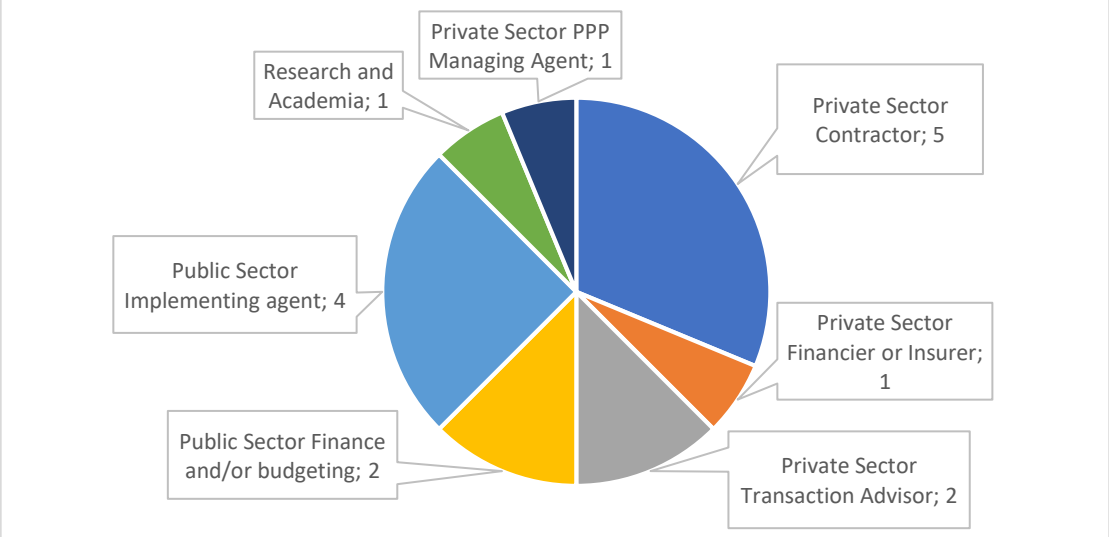


Figure 15: Respondents / participants by sector experience

The data collection also captures the experience of each participant in terms of both infrastructure delivery and familiarity with PPPs. While most respondents / participants' have greater than 15 years' experience with infrastructure delivery (10 of the 16), in terms of PPP experience the mode fell in the 6-10 year band. One participant had less than two years of experience with infrastructure delivery, but this is due to being involved in the field of academic research on the topic of PPPs and not being exposed directly to the field in a practical sense. Although three participants admitted to having less than two years' experience with PPPs, the same three each have more than 15 years' experience in infrastructure delivery.

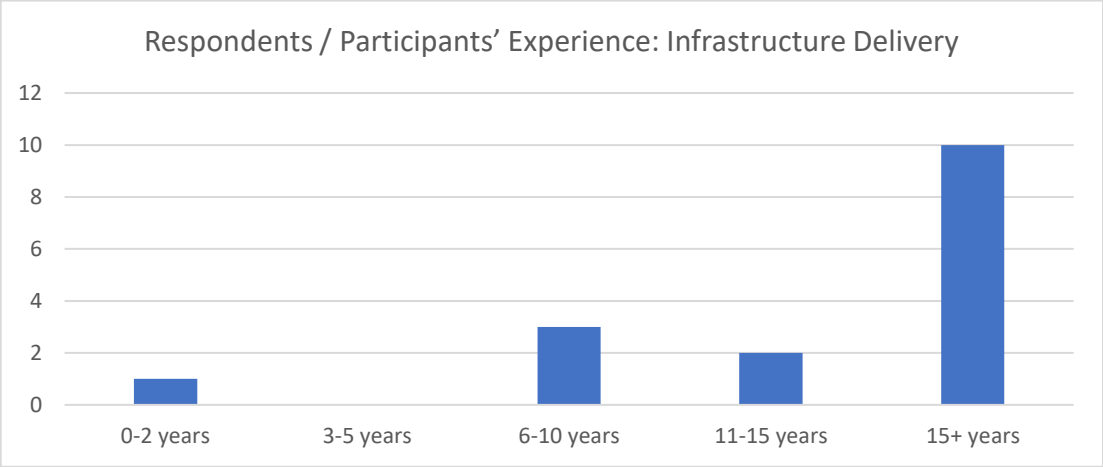


Figure 16: Respondents / participants' experience in infrastructure delivery

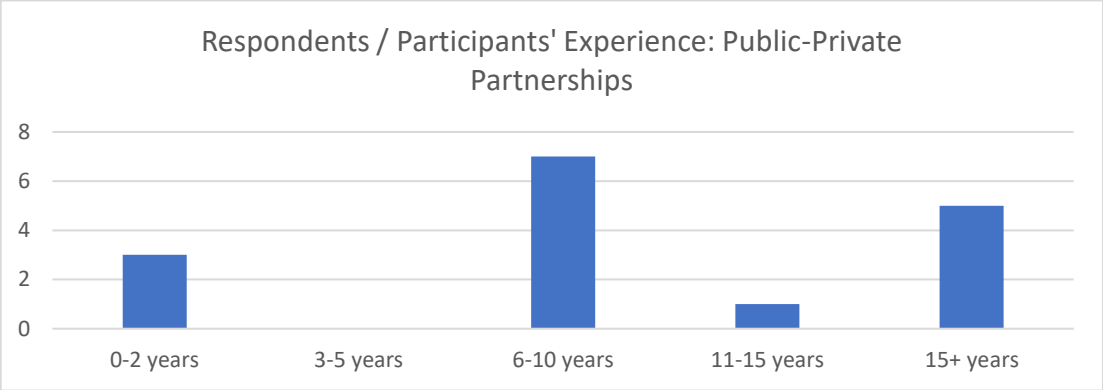


Figure 17: Respondents / participants' experience with public-private partnerships

4.6 ETHICAL CONSIDERATIONS

The study was considered low risk when considered against the University of Stellenbosch's DESC guidelines (published September 2012) for the following reasons:

1. The research material was not considered sensitive, as information and analysis of PPPs is generally available and accessible in the public domain in the form of academic sources and articles in the mainstream media;
2. In terms of empirical data, only opinions were collected and analysed, not personal information; and
3. Respondents / participants in the study were not considered part of a vulnerable population.

In terms of the mode of data collection, while the survey questionnaire provided for anonymity by its very nature (respondents' names were not requested), it is not possible to guarantee anonymity to participants in the depth interviews due to the limited scope of the PPP typology in South Africa. This was confirmed with the participants and written consent was obtained prior to their acceptance as subjects in the study.

4.7 SCOPE AND EXCLUSIONS

It is important to note that this project focusses exclusively on the infrastructure delivery aspect of PPPs and not the operational arrangements often associated with this form of procurement. This is not an oversight, the reason being that the present focus on the provision of basic education in the Western Cape is placed on infrastructure delivery alone and not the resources needed to maintain the facilities or even operate the schools.

However, this could change if cognisance is taken of the very real prospect of the declining condition of education facilities, which is highlighted in the WCED's UAMP alongside the need to grow the portfolio, requiring a facilities management solution or a complete operational solution should WCED be unable to provide the operational capital (teachers and administrators) to effectively run the facilities. In the latter instance it is worth referring to a text edited by Robertson, Munday, Verger and

Menashy (2012) who, along with chapter contributions from other authors, undertook a review of PPPs in delivering comprehensive education services in the global context. Their research goes into considerable detail regarding the origins, reasons, benefits and challenges of using PPPs as a comprehensive vehicle for education delivery. The lessons learnt could be invaluable, should the model shift to include the broader opportunities afforded by PPPs, especially where this model has been extensively utilised in the UK. Being able to include school operations and facilities management in the scope of a PPP makes a considerable difference to the capability of the public sector to transfer risk to the private partner with a concomitant effect on value for money. Both of these, as has been established previously, are cornerstones of PPPs.

It is also worth noting that this report does not investigate the provision of education through independent schools as these facilities fall outside the scope of the public sector. However, the growth in this sector is not to be overlooked. A 2016 article cites a surge from 65 independent schools in the province in 2011 to 244 schools just five years later – a nearly four-fold increase (Fredericks, 2016).

In the context of partnering with the private sector, this avenue may be worth considering given that independent schools account for approximately 15% of the total number of education facilities in the Western Cape province, but only cater for 3% of the total number of learners (Markle & Van Der Lingen, 2018:19). The discrepancy in the proportion of facilities versus the proportion of learners is evidence of both smaller learner numbers per school (smaller facilities when compared to public-sector counterparts) and a more favourable learner-educator ratio. Although these two aspects are typically associated with a higher quality of education allied with a considerable price of admission and leaving these facilities out of reach of the poor, this perception is thrown into stark contrast by the many no-fee or low-fee schools receiving funding from provincial government. While the independent school model is typically associated with the for-profit model, such as the Curro schools and the various ADvTECH group schools, approximately 40% of independent schools in the Western Cape are subsidised by provincial government, with the WCED having transferred R107.5m to partially fund these schools in 2017 alone, the shortfall being covered mostly by private donors (WCED, 2017). These schools are given grants on the condition that they enrol learners from poorer communities and 21 218 learners have

been accommodated in this fashion in 2017 with 24 of these schools offering no-fee education (WCED, 2017).

4.8 CHAPTER SUMMARY

To investigate the potential to unlock the delivery of public schools in the Western Cape and having established in previous chapters that PPPs remain the only unexplored procurement mode available to the public sector to augment traditional infrastructure procurement (TIP), it is critical that suitable modes for delivery be explored. This chapter established that there are at least three secondary objectives, namely establishing what factors should be measured, how they may be measured and what may be done to mitigate any deviant findings. For this, a triangulated methodology was proposed involving, firstly, a review of local PPP examples through secondary data analysis to establish the factors requiring review, secondly, a quantitative survey to measure the importance and prevalence of these factors in the present environment and, lastly, depth interviews with PPP specialists from various sectors (representing the various role-players required) where the underlying causes underpinning the observations were investigated and solutions proposed to correct them.

The validity of the study was also discussed, the relatively small sample size having a bearing on this matter. It was concluded that, despite the small size, the sample is sufficiently representative of the few PPP specialists in the local environment and this is further enhanced by the breadth of the respondents across both public and private entities as well as their experience in the industry and with PPPs.

Ethical considerations were given an overview and it was established that, despite the small scale of the PPP sector in the country, the survey and interviews can be considered sufficiently anonymous for respondents to feel comfortable giving their opinions.

The chapter concluded with a discussion on the scope and exclusions noting that, while this project is focussed exclusively on the delivery of infrastructure, taking a more holistic approach can be beneficial. Including school operations and facilities management will allow the public sector to transfer more risk to the private partner and, conversely, more scope to extract value out of any partnership arrangement for the private sector.

5: CASE STUDIES – PUBLIC-PRIVATE PARTNERSHIPS IN SOUTH AFRICAN INFRASTRUCTURE DELIVERY

5.1 CHAPTER INTRODUCTION

Although South Africa engaged with the private sector in various ways before Regulation 16 of the PFMA was promulgated in 2001, local PPPs have since been procured and implemented in a standardised manner, enabling comparative analysis. The National Treasury's PPP unit has regularly publicised the projects and reviewed them on an ad-hoc basis in their periodical PPP Quarterly. In addition, the unit has in the past commissioned case study research in order to ensure that projects are independently assessed and findings made available to assist in the initiation and structuring of future projects (GTAC, 2015c). Considering the scope of this project being specific to infrastructure, it makes sense to review projects that have provided public infrastructure projects through PPPs – this being a sufficiently small set. For the purposes of case study research, the selection of PPPs for this purpose was narrowed down based on the following criteria:

1. The PPP must be an infrastructure or infrastructure-related project;
2. The PPP must have followed the PFMA Section 16 prescripts;
3. The PPP must be considerably into the off-take period to be able to evaluate the project during the delivery phase; and
4. There should be sufficient available literature on the PPP to permit a credible analysis.

Table 4: Closed infrastructure public-private partnerships found suitable for case study review

No.	Project	Type	Financial Close	Value
1	Chapman's Peak Drive	DFBOT	May 2003	R450m
2	Gautrain Rapid Rail Link	DFBOT	September 2006	R23bn
3	Inkosi Albert Luthuli Central Hospital	Facilities Management*	December 2001	R4.5bn
4	Universitas and Pelonomi Hospitals	DFBOT	November 2002	R81m
5	Humansdorp District Hospital	Co-location PPP	June 2003	R49m
6	Western Cape Rehabilitation Centre and Lentegeur Psychiatric Hospital	Facilities Management	November 2006	R334m

*note, a DFBOT is listed in the applicable document but this is not, in fact, accurate.

Source: GTAC (2017; RSA National Treasury, 2017:160)

From the most current list of closed projects (dated September 2017) on the GTAC website (GTAC, 2017), the projects in the table above were found to meet the criteria to be considered for case study analysis.

5.2 CASE STUDY 1: CHAPMAN'S PEAK DRIVE

5.2.1 Background

In January 2000, the 78-year old iconic and scenic mountain pass of Chapman's Peak Drive on the Cape Peninsula was closed indefinitely following two fatalities within days of each other caused by rock fall events. Due to the perceived risk of future rockfall events being too high, the provincial Minister of Transport issued the closure instruction to reliably secure the safety of road users and, after the High Court set a precedent for compensation to be paid out in these events, the provincial government made the decision to close the road until the rockfall risk could be satisfactorily reduced (Chapman's Peak Drive, n.d.).

With early estimates for the rehabilitation of the pass being of a magnitude in excess of its strategic purpose (the pass is primarily a tourist attraction), the WCG began considering a 'user-pays' model, i.e. a toll road. In terms of procurement this would form the basis for a concession agreement whereby the government contracts with a private sector operator to design, finance, build and operate the pass for a given period

after which it will be transferred back to the province (Rintala, et al., 2008:146). In PPP jargon this series of activities is known by the acronym DFBOT.

Aside from being lauded as an engineering masterpiece at the completion of the construction phase in December 2003, the Chapman's Peak Drive PPP is notable for being one of the first public-private partnerships brokered by a provincial government in terms of the Public Finance Management Act of 1999. The procurement processes were also seminal in the development of the PPP policies subsequently issued by the nascent PPP unit within the National Treasury (Dreyer, Breytenbach, Watters, Van Oudenhove & Parring, 2005:457; Rintala, et al., 2008:155).

5.2.2 Procurement

Four months after the drive's closure (in April 2000), the WCG was approached by Capstone, a private-sector consortium of specialist engineering and construction companies, with a proposed solution to mitigate the risk of rockfall. Although the solution appeared technically sound – making use of a series of specially constructed concrete canopy structures and a novel series of catch-fences – the unsolicited nature of the proposal could not be considered by the state as it was not supported by an applicable regulatory framework. Further, without a competitive process to ensure value for money (VFM), a requirement of the prevailing public procurement framework, the proposal was disregarded (Rintala, et al., 2008:148).

In order to investigate the solution using prevailing procurement processes, the province began a competitive process, issuing a Request for Proposal (RFP) in August 2001. The process involved numerous steps:

1. Prequalification: bidders were prequalified based on meeting minimum requirements;
2. Bidding: bids were evaluated against seven weighted criteria;
3. Best and Final Offer (BAFO): bidders were given a last chance to refine their proposals;
4. Preferred bidder: first place bidder was announced with runner-up held in reserve, acceptance subject to passing the National Treasury's value for money test; and

5. Financial close: signing of the deal and commencement of the works and concession agreement.

(Rintala, et al., 2008:148-154)

Through this process the initial five bidders were reduced to two by the time of the VFM test, with the preferred bidder kept in check by the option to award to the first runner-up if all conditions were not met. Financial close (award) was finally made in May 2003, 21 months later and the deal was signed with a total value of R350m and a period of 30 years.

Due to the lengthy procurement process, bid bonds were a key innovation to ensure that bidders remained committed to the process. After construction was completed, the road reopened in December 2003 as a toll road on a 30-year concession agreement.

5.2.3 Critical Success Factors

> *"In terms of the PPP guidelines, the [Chapman's Peak Drive] proposal had to demonstrate 'affordability' and 'value for money' with 'appropriate risk transfer'."*
>
> (RSA National Treasury PPP Unit, 2002a:4)

From the above, it is evident that the deciding factor to enter into a concession arrangement on Chapman's Peak Drive was affordability. This coincided with value for money and risk transfer which, in this instance, form the obvious next critical success factors in ensuring that the project makes best use of both taxpayer's and road-user's money while apportioning risk appropriately to the party best able to manage it.

6.2.2 Affordability

> *"In 2000 it was clear that, however unpopular, tolling would need to be introduced if the 9km of pass were to be re-opened and kept open on a safe and sustainable basis."*
>
> (WCG Ministry of Transport & Public Works, 2012:5)

The initial decision to enter into a concession was based in the fact that the degree of capital funding required via traditional infrastructure procurement (TIP) would have put considerable pressure on the government's ability to roll out other infrastructure projects. In the absence of a revenue generation facility through levying a usage cost or toll, the total cost to the province to maintain and operate the road would have proved prohibitive in the long term and created a burden that the taxpayer would have to cover in full, diverting resources from other aspects of service delivery in the province.

6.2.3 Value for Money (VFM)

Rintala, et al. (2008:149) notes that achieving value for money on the Chapman's Peak Drive proposal was based on the format of the competition being a "first-price sealed-bid auction". In essence, the tender would be awarded to the bidder that found the least cost solution that met the required criteria. Maintaining an acceptable level of competition therefore relies on having a sufficient number of bidders participate in the process. During the procurement phase the level of competition was compromised when only two bidders remained after the bidding stage. The risk of having one of the two remaining bidders withdraw was mitigated when the WCG instructed the bidders to supply bid bonds and hence remain committed to the process. This meant that the risk of being left with one bidder and a compromised competition due to the extended procurement phase did not impact negatively on VFM.

However, Rintala, et al. (2008:152) speculate that the inclusion of bid bonds at Best and Final Offer (BAFO) stage, a noticeably late stage in the process, meant that this

could only be applied to the two remaining competing consortia. Including this requirement at an earlier stage could have allowed more of the original bidders to remained committed to the process.

At preferred bidder stage, the final hurdle was to ensure that the winning bid passed the National Treasury's value for money test. Similar to the UK's standard, the VFM test involves comparison between the PPP proposal and a Public Sector Comparator (PSC). The PSC is a hypothetical example of what the proposal would cost if procured through traditional infrastructure procurement (TIP) and the facility operated by the state.

6.2.4 Risk transfer

At an early stage in the process the financial responsibility for the initial construction was agreed to be conducted on a 50/50 basis: the private consortium responsible for half of the R150m initial construction cost and the provincial government the balance (Dreyer, et al., 2005:463). The WCG hence contributed approximately R72m via a grant payment while the private consortium obtained a similar sum through a combination of debt arranged through Rand Merchant Bank and equity placed by the construction companies involved. The addition of equity into the financial mix is a positive step in transferring risk to the contractors responsible for the construction phase. While a construction contract includes penalties for late completion, the addition of equity on the part of the contractors means that there is a commercial interest in ensuring that the construction meets or betters the completion date, and the sooner the better for the recovery of the investment during operation.

In terms of the optimal off-take agreement for the concession, the forecast risk of rockfall events became critical in assessing the degree of risk transfer in the event of potential rockfall events. The original deal concluded in 2003 enabled the operator (the concessionaire, Entilini) to unilaterally close the pass at its discretion with the province required to compensate the operator for the shortfall in revenue, meaning that all risk was transferred to the WCG. In 2008 the Western Cape Premier, Lynne Brown, announced that the impact of this deal was calculated to have cost the province nearly R58m in compensation during the first five years of operation, with the pass being closed at one point from June 2008 to April 2009 over peak tourist season and at the ire

of local residents (Underhill, 2012). A task team was convened to investigate the deal and find a solution, the conclusion of which allowed for a restructured deal in 2011. The new deal allowed both partners to jointly agree on future closures and the financial compensation was revisited.

One aspect of the project which had onerous effects on the operational phase was the considerable delay of the decision regarding placement of the toll plaza. The onus was on the provincial government to conclude this process. In the interim, a temporary facility consisting of containers and fibreglass booths was used to house the management offices and tolling operations pending the decision on the location and design of permanent accommodation. Following a Heritage Impact Assessment (HIA) in 2003, full Environmental Impact Assessment (EIA) in 2005, two records of decision (RODs) in support of the toll plaza (in 2005 and 2008 respectively) and amongst considerable public outcry during construction, the toll plaza was eventually completed in 2013, nearly ten years after the pass was re-opened under the PPP agreement.

6.2.5 Innovation

The technical solution proposed by the private partner and its refinement during the bidding process was arguably the key ingredient in the success of the winning bid. The need to reduce the risk of a rockfall incident while minimising the visual impact on the drive's scenic splendour was optimised through a combination of unique (to the South African context) catch-fences and specially constructed concrete canopy structures were the catch-fences proved to be inadequate. The competitive procurement process further incentivised the private sector to value-engineer the proposal, making use of advanced computer modelling to optimise the engineering solutions to be deemed sufficient to reduce the risk satisfactorily (Dreyer, et al., 2005:459). Allied with the novel engineering solutions were notable procurement innovations which had a secondary impact on VFM, notably the use of bid bonds and a combination of three different sources of investment to finance the project upfront.

Aware that if a bidder pulled out during the procurement process (a significant risk due to the lengthy and onerous process) and the detrimental effect this would have on achieving value for money due to lack of competition in the event, the WCG instructed

the two remaining competing consortia to obtain bid bonds to ensure their commitment to the conclusion of the process.

6.2.6 Flexibility

The ability to renegotiate the contract during the off-take period was critical in ensuring equal risk transfer between both parties (WCG and Entilini). The original agreement whereby one party could unilaterally close the pass was shifted to one where the two parties would jointly agree on closure. The ability to renegotiate the contract to ensure fairness during the remainder of the contract period was critical to its ongoing success.

5.2.4 Lessons Learnt

5.2.4.1 Lack of transparency

During the bid process there were complaints that bidders were being treated unfairly or given additional information. This situation was created due to the complications of evaluating two quite different solutions to solve the problem of lowering the rockfall risk. Against international best practice, the province entered into negotiations with the two remaining bidders to find a solution (Rintala, et al., 2008:152). The bidders were permitted to refine or change their proposals to suit what they perceived to be the province's emerging preferences, more specifically the need to maintain unobstructed views to the ocean as much as possible. Although critical to ensuring that the scenic nature of the drive would not be adversely affected, this was not a critical requirement at the outset. The above could have been called into question later, affecting the entire process as well as the reputation of the province.

5.2.4.2 Lack of public-private partnership unit oversight during the operational phase

According to Dreyer, Breytenbach, Watters, Van Oudenhove and Parring (2005:467), the abovementioned restructured deal could have been mitigated earlier if the National Treasury's PPP unit had assisted in extending their oversight role into the concession agreement and provided a monitoring and evaluation role during the off-take period.

5.2.5 Summary

Chapman's Peak Drive emerged out of a need to solve a complex engineering challenge. In addition to its technical success it also managed to achieve significant secondary benefits, namely:

- Implementing the PPP requirements in terms of Schedule 16 of the PFMA during a protracted and complex procurement process;
- Successful contract renegotiation during the off-take period;
- Significant BEE investment and local community involvement; and
- A sustainable user-pays model.

The project demonstrated the application of the following critical success factors: affordability, value for money, risk transfer, innovation (technical and during procurement) and flexibility during the operational period. Lessons learnt include ensuring transparency and consistency during procurement and critical specialist oversight by PPP experts during the operational period.

5.3 CASE STUDY 2: GAUTRAIN RAPID RAIL LINK

5.3.1 Background

In the mid-2000s, congestion on Gauteng's freeways was reported as being the worst in the southern hemisphere and forecasts anticipated further deterioration at a rate of 7% per annum over the next few years in terms of increasing road traffic volumes

(Engineering News, 2008). In 2011, congestion on the section of the N1 between Pretoria and Johannesburg was estimated to cost over R300 million per annum (Thomas, 2013:80). Considering Gauteng's status as "the economic heartland of South Africa, generat[ing] 38% of the total value of South Africa's economic activities" (Engineering News, 2008), it was considered feasible to construct a high-quality public transport system for middle-class commuters who could afford private motor transport but refused to use the existing public rail system due to concerns around reliability, regularity, speed and safety.

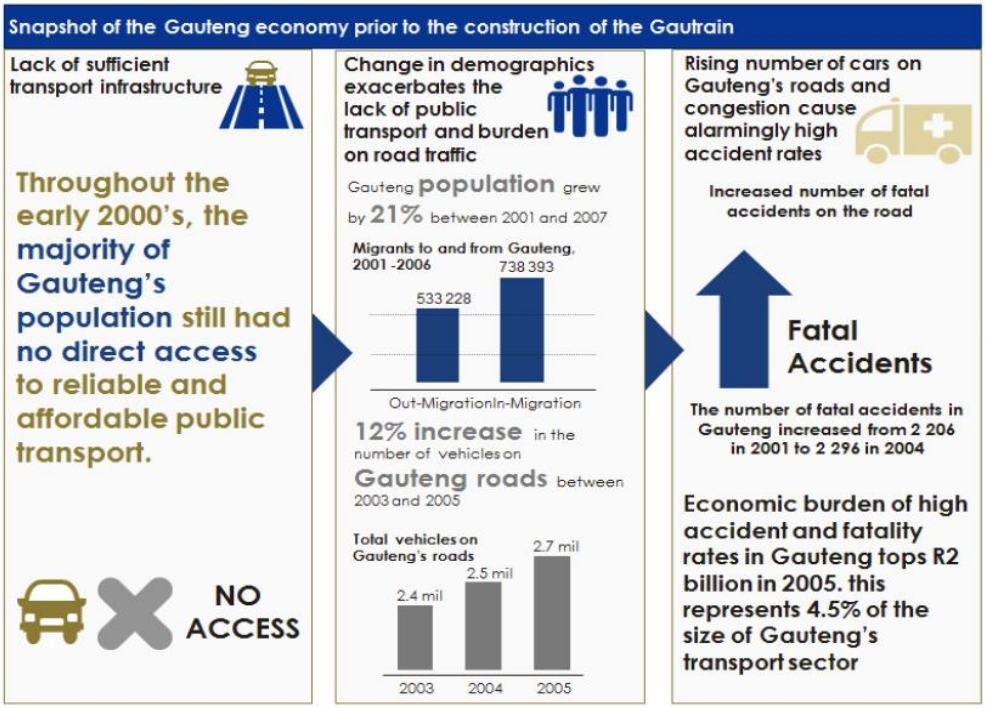


Figure 18: Pre-Gautrain concerns in the province

(Dachs, 2016:6)

The provincial government considered a two-pronged approach to solving the congestion problem. The primary scheme was the implementation of a series of upgrades to the major transport arterials between Pretoria and Johannesburg, namely the Gauteng Freeway Improvement Project (GFIP), resulting in toll roads (the much-publicised e-tolls) for users. The secondary scheme was the addition of a high-quality rail-based solution to provide a modal option for commuters intended to relieve road traffic volumes: The Gautrain Rapid Rail Link (or simply, the Gautrain).

The Gautrain was intended to provide an effective (reliable and punctual), economic (versus owning and/or operating a private motor vehicle) and efficient (reliable and time-saving) alternative to commuting between these two major economic hubs by private transport. Funding was to come from three sources: direct funds from the provincial government (particularly in terms of the capital expenditure to construct the infrastructure and acquire the rolling stock), private lending and equity in the project by the private partners involved, and, finally, through the revenue generated by fee-paying customers.

While the primary objective was to provide a solution to road traffic congestion, secondary objectives included making significant inroads into socio-economic development (SED) in terms of BBBEE development, local procurement and subcontracting, job creation and skills development, as well as a contribution to urban renewal and regeneration through the strategic location of stations as development nodes and environmental sustainability through reduced carbon emissions (GMA, 2015b:8-11; Ramabulana, n.d.).

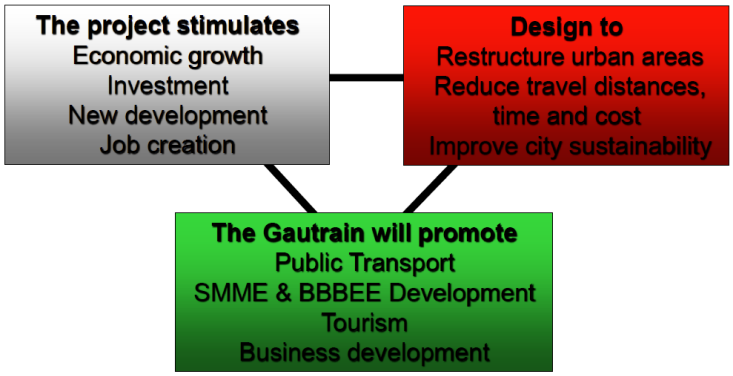


Figure 19: Gautrain objectives

(Dachs, 2016:7)

In a paper presented at the dawn of the project, Venter, Burnett and Malukele (2001:1) note the incredibly complex nature of the planning, involving 36 technical elements, with each requiring a specialist to lead the team responsible for that element. In addition, the project had to be significantly fast-tracked to meet the tight timeline, with the intention to be operational in time for the 2010 FIFA World Cup only nine years

away. This was at odds with international best practice which indicated that projects of this type, scale and complexity require on average approximately 14 years from initiation to completion.

Venter, et al. (2001:3-4) go into considerable detail regarding the feasibility assessment and the responsibilities of the public and private sectors in addressing these elements. Although the finer detail is beyond the scope of this report, of relevance are the critical success factors tabled in the figure below and the allocation of who is to manage this element. The CSFs of relevance include financial viability (affordability), political will, economic feasibility (cost-benefit or value for money), technical feasibility and commercial risks (each of which arguably relate to risk transfer).

Table 5: Gautrain feasibility elemental assessment

FEASIBILITY ELEMENT	PRIVATE SECTOR	PUBLIC SECTOR
Bankability	X	
Financial viability	X	X
Technical feasibility	X	X
Political will	X	X
Environmental feasibility	X	X
Social acceptance (project not opposed)	X	
Commercial risks	X	
Socio-political acceptance		X
Economic feasibility (cost vs benefits)		X

Source: Venter, et al. (2001:4)

At an early stage it is of interest to note the shared proposed responsibility of some of these elements. For instance, it might be assumed that political will would be exclusively a public sector responsibility. The assertion by Venter, et al. (2001) that this element presents a dual responsibility is based on the realisation that the project relied not only on advocacy by top public figures and senior officials but also on community acceptance (ground-level support). This alludes to the responsibility of the private partner to effectively engage with and present the project to interested and affected parties in a manner that it finds acceptance at grassroots level. During the process this was called into question with the public realisation that the project targeted only those who could afford to use it and would not directly address the needs of the indigent. Taken further, the project was criticised as having the potential to exacerbate the

mobility divide between rich and poor (Donaldson, 2006, cited in Thomas, 2013:78). When this came to light political will was firmly tested.

5.3.2 Procurement

The Gautrain project was structured as a DFBOT (Design-Finance-Build-Operate-Transfer) type of PPP (RSA National Treasury PPP Unit, 2010:7). The project was initiated in April 2000 with the Gauteng Department of Transport issuing a Request for Prequalification (RFQ) in February 2002, and two bidders identified as prequalified in May of the same year (Dachs, 2016:14). Following a lengthy three-stage Request for Proposal (RFP) process, Best and Final Offer (BAFO) submissions were made in March 2005 (Dachs, 2016:15). After evaluation, the 19.5-year concession agreement was signed with the winning consortium, Bombela (comprising Murray & Roberts Ltd., Bouygues Travaux Publics SA, Bombardier Transportation UK Ltd., SPG Concessions Ltd., Absa Capital and J&J Group), in September 2006 at which stage construction could commence (Thomas, 2013:79). Financial close was achieved in January 2007 (Dachs, 2016:16).

The capital cost of the Gautrain was substantially financed by public funding, with the national and provincial departments of transport contributing a combined R21.9 billion and the private sector partner contributing the balance of the 25.1 billion total cost (Dachs, 2016:19).

Table 6: Funding sources for the Gautrain project

Paying for versus financing of infrastructure spending: four case studies						
			Who pays			
			Tax payer	**User**		**Donor**
				As per benefit	**Cross-subsidisation**	
			1	***2***	***3***	***4***
Who finances	**Tax payers (cash)**	***a***	Gautrain (up to 88%)	Gautrain (only after 2011/12)	De Hoop (up to 78%)	
				33% of Eskom expansion		
			De Hoop (up to 78%)	De Hoop (up to 78%)		
	Lenders to government or government enterprises (loans or guarantees)	***b***	Gautrain (up to 88%)	OR Tambo (100%)		
				Gautrain (only after 2011/12)		
				Medupi (66%)	Medupi (66%)	
				Major part of 66% of Eskom expansion	Undisclosed (minor) part of 66% of Eskom expansion	
				De Hoop (up to 78%)	De Hoop (up to 78%)	
	Private investors (equity)	***c***		Gautrain (12%)		
				De Hoop (22%)		
	Development agencies (loans)	***d***				
	Donors (grants)	***e***				

Note: Funding sources for the Gautrain project are highlighted in yellow

Source: Calitz & Fourie (2007:16)

In the literature review, reference was made to special purpose vehicles (SPV) used in order to create the structure and tailor the contract to the specific need. This is one of the major differences from standard infrastructure procurement where the client simply sets the specifications and contracts with the private sector to implement the works. Although fairly standard by PPP practitioners, to the uninitiated the SPV created for the Gautrain is a fairly daunting matrix of public and private actors, each with a specific role to play and critical interdependencies. Achieving a structure that balances the needs and desires of the various actors is no small task and relies on critical input from specialist PPP practitioners. Putting the structure together is the role of the Transaction Advisory (TA) team with the National Treasury's PPP unit playing an oversight role to ensure that due process is followed in the best interests of the public funds required for and affected by the project in the future.

Prior to the final contract being signed in 2006 the provincial Construction Assurance Management (CAM) team was constituted to oversee the construction phase of the project (GMA, 2017:3-4). The CAM team was required to manage the construction team, the Bombela Civil Joint Venture (BCJV), in order to ensure it met its implementation targets. At first finding suitably qualified and experienced staff was problematic due to the simultaneous construction of similar megaprojects in the lead up to the 2010 FIFA World Cup but this was mitigated by expanding the search to international specialists.

The Gautrain contract structure involved the provincial and national government (providing 88% of the capital contribution); the PPP consortium (Bombela); and the Gautrain Management Agency (GMA), an independent agency instituted to oversee operations and ensure that the PPP met the performance standards set by the agreement.

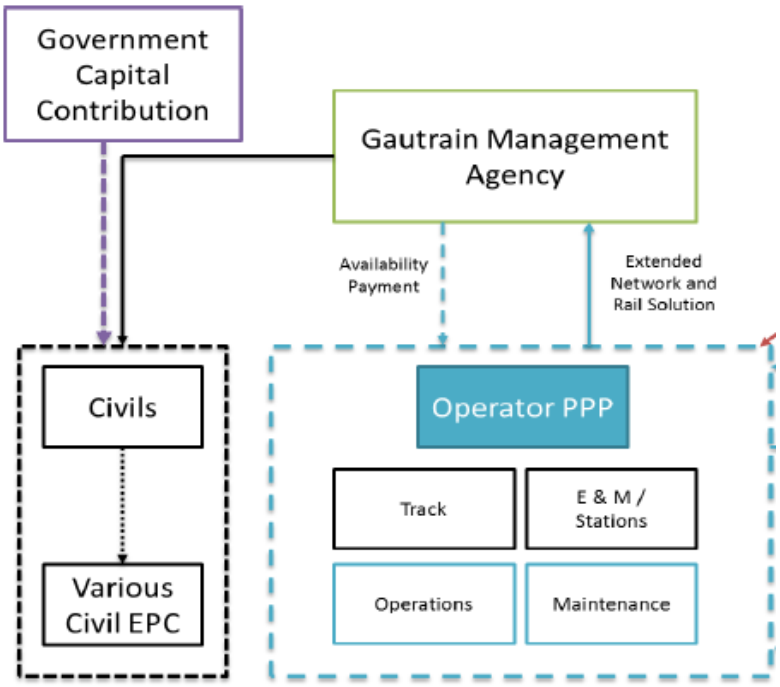


Figure 20: Gautrain contract structure

(Dachs, 2016:52)

5.3.3 Critical Success Factors

While the Gautrain has been lauded as a transport masterpiece, it would not have come to fruition and provided the level of service expected without the presence of the following critical success factors: political leadership and will, continuous and strong project leadership and technical team, treasury involvement in funding and, during the operational phase, performance management (Dachs, 2016:4; GMA, 2015a:8-10).

5.3.3.1 Affordability

At initiation in 2000 the original cost estimate for the Gautrain was in the order of R3.5-4 billion (Fombad, 2013:15). By February 2002 this had escalated to R7 billion, which was still within reach of the Gauteng provincial government (Thomas, 2013:86). However, in a presentation to the parliamentary Transport Portfolio Committee in November 2005, the project leader noted that the process had encountered additional issues, meaning that costs had ballooned to R20 billion (van der Merwe, 2005:46-47). These costs related to route realignment to mitigate environmental impact, greater demand than originally expected meaning an expanded offering, land costs, a reviewed risk analysis, VAT on construction elements not included in the original estimate, contingent liabilities, additional tunnel lining to mitigate potential geotechnical effects, relocated bulk services and additional insurance costs. The R20 billion price tag was of concern when compared to the entire 2004/2005 transport budget of R4.67 billion (PMG, 2005). Although not obliged to complete the Gautrain before the 2010 FIFA World Cup, the project was listed as one of the beneficiaries of the R33 billion released by the national government to make targeted infrastructural upgrades in preparation for the event (Gordhan, 2010:3). Under pressure to see the project to fruition by 2010, the National Treasury stepped in to assist, committing nearly three quarters of the 25.1 billion required at the beginning of the construction phase in September 2006. As indicated by the figure below, the remainder of the funds came from provincial borrowing and private sector debt and equity.

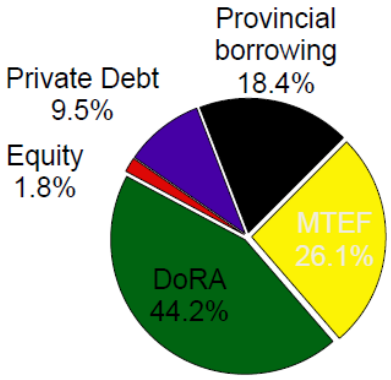


Figure 21: Project financing

(Dachs, 2016:21)

Having secured the capital required for the project, it became apparent that the project required some form of guarantee from the provincial government to ensure that the private partner could sustain it. The provincial government made available a 'patronage guarantee', an annual injection of public funding to subsidise the project during operations – a figure of R259 million allocated by the Gauteng Department of Roads and Transport's 2011/12 budget (Thomas, 2013:87). While it is not unusual for the public partner to accept the financial burden in the event of lower than expected patronage, the greater concern is that with this as a line item in every consecutive financial year during the 19.5 years of the concession agreement, implementation of future projects could be displaced.

5.3.3.2 Political leadership and will

> *"A good example is the Gautrain Rapid Rail Link, which has so far survived three elections and five cabinets."*
>
> (Fombad, 2013:10)

The Gautrain was considered a pet project by the provincial Premier, Mbhazima Shilowa, to such an extent that as far back as 2001 the project was dubbed the 'Shilowa

Express' (Engineering News, 2001; Thomas, 2013:90). With a strong trade-union background, his interest in seeing the project become a beacon of success for Broad-Based Black Empowerment (BBBEE) and job creation led him to continuously promote the project and ensure it met its secondary objectives of socio-economic development (SED) (Shilowa, 2006). An ANC politician, Shilowa was also able to continuously promote the project as his party remained the dominant political force in the province for the full duration of the initiation and financial close of the project. His leaving the party in 2008 did not affect the project, which achieved financial close the year before.

This aspect of political will also had a negative side-effect as the project was criticised as a legacy project for the Premier. Barrett (2011, cited in Thomas, 2013:90) notes that "Shilowa … wanted a legacy project with his name on it", with the effect being a project that proceeded despite significant queries raised regarding it being the de facto best or most cost-effective transportation option providing greatest benefit to the wider public.

5.3.3.3 National Treasury involvement in funding

With the project forming part of the infrastructural upgrades identified for the 2010 FIFA World Cup, the national government became a key stakeholder in the project when it released nearly 75% of the required R21.9 billion in government funding into the capital cost of the project. While making the project affordable, this had two additional results: (1) the cost of borrowing could remain low (the cost of servicing any additional private sector debt could have adversely affected value for money); and (2) the project received parliamentary oversight. The latter point means that parliament's Transport Portfolio Committee could retain oversight and enforce accountability at a national level at any point during and after the project, a critical aspect of ensuring that state funds were spent in the best interests of the public.

What is important to note is that national government was included very late in the process (October 2005) meaning that cabinet's participation in an oversight capacity during the procurement process was incredibly limited. By the time the project was reviewed by the Transport Portfolio Committee in November 2005, the preferred bidder had already been announced (TPC, 2005). With pressure mounting to see the project to

financial close so that the first phase could be completed in time for 2010, it is unlikely that the national stakeholders had much option but to accede to approving the project.

5.3.3.4 Continuity of technical and contract management team into the operational period

Early in the planning phase a Province Support Team (PST) of specialists was appointed to develop the various technical aspects of the contract. This encompassed all facets of contract management, technical engineering expertise, selection and procurement, amongst others. At one stage this team comprised over a hundred specialists from various disciplines and backgrounds (GMA, 2015a:6). The PST was crucial in setting up the long-term management team – the Gautrain Management Agency (GMA) – who would manage the contract during the operational phase (the 20 year off-take period). Key to the success of this process was continuity, with ten key members of the PST becoming part of the GMA.

5.3.3.5 Performance management

The GMA set clear quantitative performance specifications for the operator to meet with the intention of using continuous monitoring to measure the quality of the overall service. The Gautrain's Performance Management System (PMS) measured average availability of trains at 99.5% and punctuality at 98.6% for the 2016/17 financial year (Global Infrastructure Hub, n.d.:3). The PMS is one of the key innovations linked to the operation of a successful service. Key parameters were identified and a performance standard agreed between the GMA and the operator, Bombela. This data-based approach to monitoring meant that areas of improvement could be quickly recognised and addressed as well as penalties implemented for non-performance (not meeting the agreed standards), which could be objectively applied. The parameters used for assessment were:

- Train availability;
- Punctuality and capacity and overcrowding management;
- Customer safety (number of incidents);

- Cleanliness (number of times stations and trains cleaned);
- Perception (number of customer complaints); and
- Train set conditions (number of train set condition assessments passed).

(GMA, 2015a:8-10)

5.3.4 Lessons Learnt

5.3.4.1 Lack of public consultation and transparency

Reports state that the there was a general lack of public consultation in the lead up to and during procurement of the project, with calls being made to make this information public (Campbell, 2011; Fombad, 2013:4; Thomas, 2013:87). Although there is summary evidence of the overall process available in terms of the achievement of milestone dates, there is insufficient detail to effectively evaluate the procurement process. When compared against the information available on Chapman's Peak Drive, where significant information was disseminated and analysed to the point where much of the analysis became formative in the policies and processes drafted by the National Treasury's PPP unit, the Gautrain project stands in stark contrast.

5.3.4.2 Pressurised political decision-making

> *"On 25th October 2005, the Minister of Finance … announced in parliament that the [provincial] Gautrain project [now] had a 'national' status, and that it would be costing the national fiscus an estimated R20 billion. It has also been indicated that a final cabinet decision will be made in mid-December. If cabinet agrees, the roll-out of the project will commence in January 2006. We now have only two weeks of the final parliamentary session of the year remaining. This means that Parliament will have a few hours in which to assess what will be … the largest ever budgetary allocation … to a public transport project."*
>
> (TPC, 2005)

In November 2005, parliament's Transport Portfolio Committee (TPC, 2005) raised the following concerns about the project:

- "Are we sure that the Gautrain will indeed impact effectively and positively on congestion?
- Are there not cheaper alternative public transport answers to the Ben Schoeman congestion challenge – bus rapid transit systems are increasingly being used in Third and First World cities, costing 10 to 20 times less?
- If we are so optimistic about the Gautrain relieving congestion, why is there now also a go-ahead on the PWV 9 road? And what is happening to the planned Ben Schoeman toll-way, which might be a more effective transport management solution?
- Is congestion best solved through construction and transport answers? What about a much more integrated spatial planning approach? Underpinning all of the concerns noted above is the following cluster of central questions:
    - Can the Transport Portfolio recommend to Cabinet that we proceed with a R20-billion plus project that might attract some affluent car-users (reckoned at an optimistic 120 000) off one of the congested axes in Gauteng, while some 6-7 million existing regular public transport users experience public transport that we all admit is inadequate, often unreliable, unsafe and under-funded?
    - Can we recommend a project whose technical specifications and ticket prices are likely to widen the gap between the so-called 'first' and 'second' economies?
    - Can we recommend a project that seems not to be integrated into the comprehensive Integrated Transport Plans of the affected metros, and which may well drain scarce resources away from other more integrated initiatives and, indeed, actively undermine spatial planning and land-use plans?"

With just five years to go to the 2010 FIFA World Cup, and despite the best efforts of the TPC at the time, many of the above questions were likely never fully addressed. This is mostly due to the combination of political insistence that the project be added to the list of priority infrastructure upgrades identified for the event and lack of time available to rigorously assess potentially more cost-effective and inclusive alternatives.

5.3.4.3 Significant budget escalation

Initial estimates for the Gautrain in 2000 placed the project in the order of R3.5 billion, ballooning to R4 billion within six months (Fombad, 2013:15). Despite the fixed price nature of the turnkey project at award in September 2006 of R25.1 billion, by 2011 variations brought the total cost to R30.462 billion (Serrao & van Schie, 2011; Dachs, 2016:19; Fombad, 2013:17). These irregularities concerning, with many variations later claimed to be due to ineffective contract management during construction.

5.3.4.4 Ineffective contract management

Disputes around the resolution of latent defects and discovery items incurred significant delays and, as highlighted in the preceding section, considerable additional costs (Serrao & van Schie, 2011; Fombad, 2013:17). Although this is nothing new to construction projects, reports on the Gautrain cite a lack of experience on the part of the contract managers or poorly constructed contractual arrangements for dispute resolution as an aggravating factor, delaying resolution and contributing to later-than-expected completion dates. A 2011 presentation by the GMA highlights the above as one of the challenges and states that a “clear dispute resolution process” is essential for the project and PPPs in general (Dachs, 2011:20-21).

5.3.4.5 Ineffective risk allocation

> *"A line item in the Gauteng transport budget for the coming year has revealed that the government will be paying Bombela as much as R360 million a year as a 'patronage guarantee'."*
>
> (Vegter, 2011)

Thomas (2013:87) refers to a 'patronage guarantee' in the event that the project is unable to recoup sufficient fees from users, creating a situation where the project may become financially unsustainable. In order to address this matter, the provincial government agreed to pay a fee in the event that this occurs, lessening the risk to the private partner. Although this is not an unusual aspect of many PPPs, in the Gautrain this became an annual and unconditional injection leading to reduced incentive for the PPP consortium to ensure value. This places pressure on the management consortium to ensure that the project achieves its performance targets through financial penalties in the event of under-delivery, not through economic optimisation.

Considering the hefty capital injection by the national and provincial government, as well as the 'patronage guarantee' promised in the event of poor passenger take-up, one may surmise that the public partner took on a considerable degree of the risk both during construction and into the operational phase (Flanagan, 2011; Fombad, 2013:19). This means that not only did government bear most of the delivery risk of the project, it accepted the demand risk (in the event of revenue being below projections due to poor passenger numbers) during the operational phase. Under these conditions the incentive for the private partner to ensure that fee-paying customers make use of the service is significantly eroded.

5.3.4.6 Corruption

Tainting the lack of transparency in the process, one of the partners involved in the PPP consortium was linked to a Tunisian arms and infrastructure 'fixer' who allegedly paid a bribe to a South African businessman to lobby for them to be awarded the contract. The SA businessman later admitted to the allegations (Fombad, 2013:16).

5.3.5 Summary

The Gautrain is regularly lauded as a technical masterpiece of international standard. In addition to this aspect, the project has been linked to significant private sector investment in the zones close to the rail link and stations, as well as job creation with figures of R11 billion in development spending and nearly 150 000 new jobs being touted during 2013 alone (Dachs, 2016:35).

Critical success factors apparent in the project include affordability, political will and leadership, the National Treasury involvement in funding the project (linked to affordability), continuity between the implementation and contract management team and extensive monitoring to ensure that the project achieves its performance standards. Lessons learnt include lack of transparency and public consultation, pressurised political decision-making, spiralling costs, ineffective contract management (lack of experience in resolving fairly technical issues), concerns regarding risk allocation and, finally, corruption. The obvious omission in the list above is value for money, one of the three mandatory factors for a PPP project in SA. This is not an oversight. In reviewing the literature available, any evidence or secondary discussion around the required VFM test for this project may be found. The closest one can get to obtaining a VFM assessment around the project is a 2016 discussion by William Dachs and Nicky Prins (Richards, Prins & Dachs, 2016). The discussion goes into significant detail around the value of infrastructure in terms of the greater environment, such as socio-economic development, and conducting cost-benefit analysis taking these external factors into consideration. What can be construed from this is that the Gautrain project was seen as a catalyst to not only partially solve a congestion issue, but also to deal with development in the greater Gauteng region. What is inferred is that it was taken into account in order for the National Treasury's PPP unit to assess the VFM for the project.

As this has yet to be confirmed, this aspect cannot be conclusively included as a determining factor.

5.4 CASE STUDY 3: INKOSI ALBERT LUTHULI CENTRAL HOSPITAL

5.4.1 Background

With the aim of delivering high-quality healthcare to the public, the 846-bed Inkosi Albert Luthuli Central Hospital (IALCH) was intended to be a flagship hospital for the province of KwaZulu-Natal (Wits Business School, 2007c:2-3). To achieve this objective the provincial government opted to enter into a PPP to leverage the efficiency of the private sector in the delivery of a premium service for this public healthcare facility. The PPP was initiated during the construction phase (1996-2000) with the intention of having a private sector partner operating the facility on opening. In an interview given in 2012, the Chief Executive Officer for the IALCH described the rationale for entering into the PPP as being that the "professionals in the Department of Health will concentrate on the core business which is to take care of patients and the private partner will do the non-core functions … [t]he other reason is because of lack of expertise within the public service" (Rametsi, 2012:83).

5.4.2 Procurement

The services that were required to be provided by the private partner in the PPP included the supply of equipment, information management and technology, as well as facilities management (Wits Business School, 2007c:3). The private partner was essentially handed the building as a shell on completion of construction and instructed to fit it out and maintain it to the highest standards (Wits Business School, 2007c:4).

After going through the various phases of Treasury Approval (I, II and III), the value for money (VFM) assessment found a VFM amount of R369.8 million, the PPP being in the order of R5 billion (see Table 7 below).

Table 7: Value for money assessment of Inkosi Albert Luthuli Central Hospital

PSC per feasibility study (NPV @14.43% for 15 yrs)	R4 877.6 million
Risk Adjustment	R 510.8 million
Risk Adjusted PSC (benchmark for VfM calculation)	R5 388.4 million
PPP price	R2 454.3 million
Retained DoH costs (original feasibility study)	R2 564.3 million
Total	**R5 018.6 million**
Therefore VfM amount	R 369.8 million

Source: Wits Business School (2007c:8)

Impilo Consortium, with shareholders including Siemens, AME, Drake & Skull along with various BEE shareholders, was awarded the PPP contract in March 2002 with a period of fifteen years and the IALCH was commissioned on 28 June 2002 (Aiello, 2014:9; Rametsi, 2012:83). The off-take agreement was financed by unitary payment from the KZNDoH at R304.9 million per annum, inflation-adjusted at CPI.

5.4.3 Critical Success Factors

5.4.3.1 Political support

At an early stage the Chief Financial Officer of KZNDoH was appointed as project officer (Wits Business School, 2007c:2; Haarhof, 2008:78). Having a suitably senior official in the client department promoting and overseeing the project allowed decisions to be made quickly and efficiently – a vital element for effectively administering a project of this scale and prominence. One of the other considerations on this point is the delegations framework which is familiar to most public officials whereby decisions are delegated to various officials by the accounting officer or AO, who is usually the director general (DG) or head of department (HoD). This delegations framework is critical to enable certain officials to use appropriate discretionary power to make decisions, and these decisions are typically based on their financial implications. It is therefore critical that the decision-making authority of a project officer is matched to their delegated authority in terms of the value or impact of the decisions that need to be

made. It is therefore inappropriate to assign a junior official to a large-scale project where every decision will require the assent of a superior.

5.4.3.2 Risk transfer

The principle of risk transfer is that the private partner was to supply non-core services, freeing up the public partner to supply the core functions of the hospital. This was achieved by conducting a comprehensive analysis (a risk matrix) of the equipment, facilities management and human resource requirements. The equipment and facilities management aspects were transferred to the private partner while the human resource requirements (staff) remained the domain of the public sector partner. The latter risk became an issue when a considerable skills shortage was noted in the region, the analysis drawing particular attention to an estimated shortage of 200 theatre nurses (Wits Business School, 2007c:4). To mitigate this, urgent efforts were required to train nurses to ensure an adequate supply on opening.

With all equipment being supplied and maintained by the private partner this meant that diagnostic tools were 'state-of-the-art' and regularly serviced or routinely replaced in order to be kept in an operational state. Monitoring the state of equipment became critical for ensuring that the private partner achieved expected levels of performance. For this reason, the private partner was required to provide a helpdesk to log and track errors, failing which financial penalties would be levied. Transferring this risk to the private partner meant that the public sector could focus its attention on delivering core healthcare services with the best possible support.

5.4.3.3 Innovation

The IALCH embraced innovation in its intention of providing high-quality healthcare. The facility makes use of a fully-computerised information management and technology system (IM&T), allowing administration to function in a paperless environment (USAID, 2008:12). The use of technology as a lever for efficiency and effectiveness means it can do more with less, a key principle considering the lack of skilled experts to administer the functions of the institution. The hospital is also stocked

with the latest diagnostic equipment, which is maintained and replaced (when obsolete) by the private partner.

5.4.3.4 Performance specifications and monitoring

In order to meet the agreed service levels, a full output specification was conducted to ensure that equipment met certain functional standards by being current and serviced. Replacement regimes for equipment were set at five-year intervals for medical equipment and three years for IM&T systems (USAID, 2008:13). This ensures that equipment is not only kept within operational lifespans, but that new, more advanced equipment can be acquired for use.

Performance monitoring is used to assess the overall level of service of the facility, not just that of the private partner. The following items are tracked for quality (Rametsi, 2012:87):

- Patient care
- Waiting times
- Dispensing medication
- Security
- Cleanliness
- Courtesy

5.4.4 Summary

When asked whether PPPs represent a comprehensive answer to the provision of healthcare, the IALCH's CEO answered positively in the case where the public sector has "done [their] homework", has a "clear vision" for the project, if the scale of the project is sufficiently large and if there is "complete commitment to the [PPP] process" (Rametsi, 2012:84). However, he cautions that a PPP for healthcare should not be undertaken if the public sector sees this as "the easy way out", if "outsourced functions are no longer [considered the public sector's] responsibility" and if the public sector sees this as a way to save considerable sums of money. He ends by noting that project

and contract management skills are required and that “courage, vision and leadership from top management is a prerequisite”.

The IALCH presents the following critical success factors: political will, risk transfer, innovation as well as performance specification and monitoring.

5.5 CASE STUDY 4: UNIVERSITAS TERTIARY AND PELONOMI REGIONAL HOSPITALS

5.5.1 Background

The Universitas and Pelonomi co-location PPP between the Free State Department of Health (FSDoH) and private healthcare provider Netcare came about primarily due to two factors: underutilised public healthcare facilities and restrictions on license applications for new private hospitals. The former factor was identified following a national audit of healthcare facilities in 1997. During this audit the FSDoH found that they had considerable underutilised public healthcare infrastructure, with unused facilities or wards and in various hospitals and clinics requiring an estimated R825 million to address (Shuping & Kabane, 2007:153). The latter issue relates to a restriction on the number of beds that private healthcare providers are permitted to provide in terms of the prevailing norms and standards. This left private healthcare providers unable to expand their services and the FSDoH constrained in issuing additional licenses for new private facilities (Banzon, et al., 2014:53; Shuping & Kabane, 2007:154). This situation sowed the seeds for a PPP whereby the private sector, looking to expand their services with the intention of achieving revenue generation (profit), could make use of underutilised public facilities optimising the provision of health services in the province (Haarhof, 2008:85-86).

Reviewing their infrastructure as part of a realignment process in 1998, the FSDoH took a view of combining the private sector’s interest in expanding their offering in the province with addressing public facilities requiring attention. Universitas Tertiary Hospital and Pelonomi Regional Hospital were identified: the former a top teaching facility with underutilised wards and theatres, the latter an underutilised facility in a poor state requiring an estimated R100 million to bring it up to standard (Haarhof,

2008:85; Shuping & Kabane, 2007:153). The essence of the PPP was that the private partner would be permitted to run part of each hospital as a private facility adjacent to the public facilities on the proviso that they bring, and keep, them to an expected standard during the period of the agreement. The private partner would ultimately transfer them back to the public partner at the end of the contract period. The private partner would be required to finance most of the capital spend and allowed to extract profit from the portion of the facilities they run as a private hospital. This is essentially a Design-Finance-Build-Operate-Transfer (DFBOT) PPP with the private partner being able to recoup their investment through a concession during the operational phase. The reason this is known as a co-location PPP is because the private and public sector intend to share the health facilities with the aim of achieving their own objectives in a manner that is mutually beneficial to end users, staff and patients, the critical focus being on collaboration and not competition (Shuping & Kabane, 2007:152). Banzon, et al. (2014:54) add that a co-location PPP allows both partners to inject capital into facilities that will benefit both public and private end users with the potential revenue generation benefitting both partners.

The PPP was also seen as an avenue to achieve the following secondary objectives:

- Extend affordable services despite limited government budgets (addressing the issue of affordability);
- Remove or limit the duplication of services (excess capacity), addressing the inefficiency and ineffectiveness of the present healthcare system;
- Address the pre-1994 ‘racial fragmentation’ of the healthcare sector and distribute public services more fairly;
- Transfer skills from the private to public sector;
- Improve the provision of quality healthcare services to the Free State public;
- Generate employment; and
- Improve the physical image of public facilities through facilities upgrades and better management/maintenance.

(Shuping & Kabane, 2007:153-154)

5.5.2 Procurement

The project was initiated in November 2000 with the appointment of a transaction advisor, Ignis, and proceeded through various stages of treasury approval to financial close in November 2002 (Haarhof, 2008:89;97). The initial period was 16.5 years (including a 1.5 year construction phase), later extended to 21.5 years (Aiello, 2014:10).

In terms of capital expenditure, the private sector contributed R70.9 million while the FSDoH supplied R11.03 million (Shuping & Kabane, 2007:155). The concession period involved the FSDoH charging the private partner a monthly rental of R40 000 fixed for the first five years, escalating to R60 000 until the end of the concession. In addition to this fixed fee, the FSDoH levied a turnover fee. This fee meant that 1.32% of the private partner's total annual turnover for the project was to be paid to the public partner. From 2004 to 2007 the turnover fee amounted to a little more than five times the fixed rental amount, and total revenue paid over to the FSDoH amounted to R3.196 million per annum for the period (Shuping & Kabane, 2007:156).

Table 8: Capital investment in the project by the public and private partners

Capital Investment by private partner	
Universitas Hospital	
Renovations to 8th and 9th floor	15.2
New private medical centre	24.7
New medical equipment	1.7
Subtotal	41.6
Pelonomi Hospital	
Renovation of public hospital	23.6
Construction of private hospital	5.7
Subtotal	29.3
Total	70.9
Capital Investment by public partner	
Universitas Hospital	
Upgrading of lifts	2.5
Patient transport and parking	0.25
Payments on practical completion	5.78
Subtotal	8.53
Pelonomi Hospital	
Payments on practical completion	2.5
Subtotal	2.5
Total	11.03

Source: Shuping and Kabane (2007:155)

5.5.3 Critical Success Factors

5.5.3.1 Affordability

As mentioned above, addressing the backlog maintenance required at Pelonomi alone would have required R100 million. To spend this magnitude on a single facility was unaffordable for the FSDoH if the provincial government conducted the required upgrades with their own funding, i.e. through traditional infrastructure procurement (TIP). Going the PPP route meant that the FSDoH only had to spend a relatively minor capital amount (R11 million) and allow the concessionaire to do the rest. This seemed feasible as long as the private partner was allowed to realise sufficient revenue generating potential for a long enough period to recoup the initial investment.

5.5.3.2 Political will and leadership

At inception stage, Dr. Victor Litlhakanyane, Chief Director of the FSDoH at the time, was appointed to be the public sector project officer for this PPP (Haarhoff, 2008:89). Similar to the Gautrain and the Inkosi Albert Luthuli Central Hospital projects, having a senior official appointed to drive the project is critical to success in terms of being able to promote and make decisions at the appropriate level. Critically, his tenure as project officer was continuous during the various phases of approval and extended two years beyond financial close to November 2004.

5.5.3.3 Risk transfer

Significant risk was transferred to the private sector. Firstly, a major aspect of the risk transfer involved the acceptance of the existing facilities by the private partner as *voetstoots*, i.e. as is – meaning that the private partner would take on any latent defects not disclosed or discovered during the feasibility study process (Wits Business School, 2007b:6-7). This was complicated by the fact that the Pelonomi facility was in a particularly poor state due to maintenance backlogs and badly in need of attention (Haarhof, 2008:91). The major risk in this instance was that of undisclosed or

'discovery' items, with the burden being shifted wholly to the private partner. It is worth noting that this is as per prevailing best practice, confirmed later by the RSA Treasury's PPP manual published in 2004, two years after financial close.

The risk of underutilisation of the state's diagnostic facilities was mitigated by making it obligatory for the private partner to make use of the FSDoH's radiology services. This ensured guaranteed minimum revenue to the public sector for the use of this facility (Wits Business School, 2007b:7). The stipulation solved two problems: it ensured significant guaranteed revenue to the public sector of approximately R10 million per year, and it avoided potential competition in the event that the private partner built or made use of another diagnostic facility.

Haarhof (2008:119) notes that risk transfer was adversely affected by the public sector's ability to coerce the private partner into accepting an unfair distribution of risk. The grounds for this were based on the desire for the private sector to expand their offering in the face of a limited number of beds in the region. Willing to make concessions to achieve financial close by accepting additional risks such as guaranteed use of the public partner's radiology services and simply accepting the poor condition of the Pelonomi Hospital, the private partner was under pressure to recoup potential losses during the off-take period. Haarhof identified that at the time the private partner was "battling to make money", concluding with the assertion that "it is important for the public sector to realise that risk transfer should not be to the extent that it prejudices the sustainability of the private partner … [a] threat to the sustainability of the private partner is a threat to the sustainability of the PPP" (Haarhof, 2008:119).

Haarhof's assertion that risk transfer was too heavily shifted to the private partner turned into a point of contention just six years later. Aiello (2014:11) notes that the PPP agreement was in renegotiation phase at that time, the sticking points being the radiology fees (the major cost to the private partner) and a backlog in services.

5.5.3.4 Goal alignment

Co-location PPPs rely on sharing resources in order to achieve a universal outcome – in this case the provision of quality healthcare. Not only does this goal rely on shared facilities, it relies on shared human resources. The opportunity for public sector

professionals to interact with private sector specialists in a co-location PPP allows for shared learning outcomes, which are one of the stated secondary objectives of the project and critical to advancing quality healthcare in the region. This is further underscored by the fact that the hospitals form part of the academic teaching wing of the Faculty of Health Sciences of the University of the Free State. The need to attract and retain skilled medical professionals was therefore a critical factor in being able to staff the facilities, train new doctors and nurses and ensure the provision of a high-quality service to the public.

5.5.4 Lessons Learnt

5.5.4.1 Changing expectations

In an opinion piece several years after beginning operation, senior administrators for the two hospitals decried the lack of specialists being attracted or retained by the facility citing demoralising working conditions and lack of career opportunities (Mollentze & van Zyl, 2009:546). According to the authors, a critical error was made when the staff establishments between the two facilities were split, creating a separation between public and private healthcare professionals. Under these conditions public specialists were not exposed to the methods and practices of their private sector counterparts, meaning that their ability to improve their services through skills transfer was put at a considerable disadvantage. Ultimately, this scenario began a vicious cycle whereby standards spiralled downwards to a point where, at the time of the article, accreditation as a teaching facility had been outstanding for ten months.

5.5.5 Summary

The Universitas and Pelonomi hospitals relied on the presence of the following critical success factors: affordability, political will, risk transfer and goal alignment between public and private partners. However, lessons learnt allude to the shift in attitudes between the private and public healthcare staff brought on by a separation of facilities. This means that goal alignment – an early factor in ensuring that critical skills were

transferred between members of the private and public sector – were adversely affected by the split.

5.6 CASE STUDY 5: HUMANSDORP DISTRICT HOSPITAL

5.6.1 Background

Faced with a slowly deteriorating facility and inadequate funding, the Eastern Cape Department of Health (ECDoH) began considering the private sector as a partner to upgrade and operate the 60-bed Humansdorp District Hospital and extend the healthcare offering in the area. In 1999 the ECDoH initiated what was to become Kouga Partnership Hospital, comprising the Humansdorp District Hospital and the Isivivana Private Hospital, a co-location project allowing the private partner to operate a revenue-generating private facility next door to a public facility, creating an environment where both public and private sector partners could benefit from shared facilities and resources (Aiello, 2014:12; Haarhof, 2008:92; Wits Business School, 2007a:10-11).

The PPP intended to achieve the following objectives:

- A comprehensive upgrade and refurbishment of Humansdorp District Hospital;
- Establishment of a private healthcare facility (the Isivivana Private Hospital) at the Humansdorp District Hospital (co-location);
- Sharing of facilities between the private and public partners;
- Facilities management;
- Revenue sharing between the private and public partners; and
- Secondary socio-economic benefits (skills transfer, job creation, BEE shareholding).

(Haarhof, 2008:93; Wits Business School, 2007a:4).

5.6.2 Procurement

Despite the lack of PPP regulations at initiation phase at the time, the ECDoH called for tenders in April 1999, recommending the preferred bidder of Afrox Healthcare (later renamed Life Healthcare in 2005) from the four submitted. However, in the absence of a PPP procurement policy or guidelines from the National Treasury, the tender board did not approve the recommendation and in June 2000 the project was shelved. With the publication of the 2001 PPP guidelines in the PFMA (Section 16), the ECDoH approached the newly formed PPP unit within the National Treasury and the proposed project was given approval to proceed (Wits Business School, 2007a:10-11).

The ECDoH elected two senior officials to stand as accounting officer and project officer for the project: the ECDoH's own Head of Department (HOD) and the General Manager of Supply Chain Management, respectively. Transaction advisor, Ignis, was appointed in November 2001 and, after following the PPP procurement process at the time (this being prior to the PPP Manual issued in 2004), financial close was achieved in June 2003. Construction work began in November 2003 and after one construction period the facilities were commissioned and began operation in November 2004 (Wits Business School, 2007a:3;13).

Table 9: Total capital investment

	Amount
Public Facilities refurbishment / upgrade	R 7 759 246,00
Private Facilities construction	R 6 750 809,00
Subtotal	**R 14 510 055,00**
Less: ECDoH contribution	R 1 500 000,00
Total Private Sector contribution*	**R 13 010 055,00**

*The concessionaire was to provide all funding and no direct third party asset or project finance was to be used. The concessionaire assumed a cost of capital rate of 15%.

Source: Wits Business School (2007a:20)

At financial close the private partner agreed to contribute R13m in capital funding to the public sector's R1.5m, but this did not take into account substantial variations during construction. An AIDS clinic and pharmacy, initially estimated to cost R1.5 million, ended up costing approximately R10 million and as the provincial Department of Public Works got involved additional instructions were given to meet minimum

infrastructural norms and standards, driving the costs up to a figure of R42 million (Wits Business School, 2007a:26).

The project was not short of issues during the construction phase: late payments by the public sector partner led to strikes and delays, further variations during construction caused cost overruns, delays detrimentally affected value for money and the discontinuity of key role-players after financial close (the transaction advisors) meant that vital institutional memory was lost (Wits Business School, 2007a:23-28).

5.6.3 Critical Success Factors

5.6.3.1 Political will and leadership

As seen in similar projects, appointing suitably senior officials in the provincial department to drive the project and ensure swift decision-making was critical to ensure that the project was appropriately promoted and supported at senior level. What is worth noting is the role of the nascent PPP unit in the negotiation phase. With political pressure mounting to see this project to a conclusion, the head of the PPP unit joined the ECDoH's team during this phase to ensure that the deal was closed (Wits Business School, 2007a:17).

While it is important to note that the inclusion of specialists familiar with this (at the time) very novel form of agreement, the private partner subsequently noted that certain concessions were made from their side in order to see the project to financial close. While some commentators argue that this was a case of 'strong arm tactics' on the part of the public partner, it would be convenient to overlook the reasons underlying the private partner's apparent acquiescence in this regard (Wits Business School, 2007a:17). Although Afrox Healthcare had already announced their preferred bidder status to their shareholders in 2000, which some may argue was premature considering that this was prior to the project being stalled in June of that year, their commitment to the project was more than just a simple need to follow through for their shareholders. They were looking to this project as a pilot for future works. For this reason they were prepared to accept a lower rate of return in this project with the expectation that subsequent similar projects could create a far broader revenue stream (Wits Business School, 2007a:14).

5.6.3.2 Risk transfer

Of 25 risks identified during the procurement process, the private partner was allocated twice the number of risks than that of the public partner: twelve private partner risks versus six allocated to the ECDoH. The remaining seven risks were considered shared between both parties (Wits Business School, 2007a:5-8). From a project management point of view, details of the financial impact of the risk and the probability of it occurring is missing from the risk assessment in each instance. This would have gone a long way to better understanding the potential impact of the overall risk allocation and whether or not it was indeed considered balanced in terms of impact on the project.

5.6.3.3 Goal alignment

While the public partner was looking to save a public facility that was gradually sliding into disuse and underutilisation, the private partner saw an opportunity to extend their offering in an area where there was little competition in the private healthcare market and where competing facilities were considerably far away. Further, the private partner was keen to ensure that this project succeeded even at the expense of not being able to recoup their initial investment. This desire was based on the concept that this project was opening an untapped market in the province. This became apparent during negotiations when a dispute regarding cost threatened to derail the project: there was a difference of R3 million between the construction cost (R15 million) and the private partner's affordability threshold (R12 million). The public and private partners agreed to resolve the impasse by splitting the difference, and each agreed to contribute R1.5 million (Wits Business School, 2007a:18-19;51;53). Further evidence that the private partner was willing to forego profit in the interest of the success of the project is the fact that the private partner, despite being able to make the PPP operationally profitable, was unable to recoup their initial investment (Wits Business School, 2007a:36). A 2014 review of Healthcare PPPs in South Africa by the PPP unit indicates that both parties remained committed to the PPP, twelve years after financial close (Aiello, 2014:12).

This sentiment is echoed in a 2013 report (Ricks, et al., 2013:299-300) of an undisclosed PPP healthcare project in the rural Eastern Cape where non-compliance by

the public partner (the issue under scrutiny being late payments) is being allowed to slip by the private partner. Responders are concerned that this could lead to an antagonistic environment in managing the agreement. Interviewees in the report note that levying penalties, which both parties are permitted to do in terms of the contract, have been foregone in order to avoid a potential breakdown in the PPP relationship and, ultimately, poor service delivery to patients.

One of the items that was at odds with goal alignment was the apparent culture clash between the public and private sector staff in the facilities. The public sector staff were notably less disciplined than their private sector colleagues, with issues such as absenteeism being a common complaint and leading to a concurrent negative impact on service delivery (Wits Business School, 2007a:31). Despite senior management intervention, the attitudes of public sector staff remained unaffected.

5.6.4 Lessons Learnt

The Wits Business School (2007a:44-48) case study review makes the following suggestions for future PPPs:

- Replicating this PPP model should include complete facilities management, as well as the replacement of equipment once it becomes unfeasible to maintain (too costly) or obsolete (a constant issue with medical equipment and technology);
- Scale is important, small uncomplicated projects lend themselves to co-location projects;
- Ensure that both partners remain committed to the project with an emphasis on collaboration rather than competition;
- The PPP unit should shift focus from simply regulating PPPs to promoting and advocating for them;
- Involve all parties who have sign-off powers and PPP experts at an early stage to ensure that the process runs smoothly and to avoid costly variations at a later stage;

- Projects should be sustainable and flexible in terms of ensuring that decision-making is efficient and effective and that variations in the service delivery requirements may be allowed for or renegotiated as required;
- Risk transfer must be balanced between the partners and occur upfront through a comprehensive analysis and not shift later in the process, failure to do so will invite detrimental effects on value for money;
- Continuity of role-players and knowledge from the project team responsible for inception to the management team responsible for managing the contract during the off-take period is essential for continued long-term sustainability and effective operation;
- Secondary benefits, such as BEE targets, must be clearly stated and achievable; and
- Build resilience in the PPP should political administrations change.

5.6.4.1 High cost of transaction advisors

One of the critical issues highlighted is the high cost of transaction advisors leaving public bodies. These transaction advisors may be contemplating PPPs and unwilling to initiate the process due to the outlay involved in entertaining an uncertain, uncommon and potentially risky procurement mode. Since the publication of the PPP manual in 2004, the work required in initiating and seeing a PPP through to financial close means many additional hours of specialist input by PPP advisors and legal experts (Wits Business School, 2007a:46). This puts PPPs beyond the reach of government departments without funding that stretches to anything other than a mega-project where the scale justifies initial expense.

5.6.5 Summary

The Humansdorp District Hospital PPP makes specific reference to the need for the following critical success factors: political will and leadership, risk transfer and goal alignment. In addition to the high cost of transaction advisors which affects the initial decision to even begin looking into a PPP to deliver services, the following lessons are

important to achieve optimal outcomes in co-location projects: including comprehensive facilities management in the agreement, ensuring sufficient scale (linked to complexity), independent oversight and advisory during the operational phase, early and comprehensive stakeholder engagement, sustainable and flexible contracts, PPP role-player continuity, clear and achievable secondary objectives, and resilience to withstand changes in the political environment.

5.7 CASE STUDY 6: WESTERN CAPE REHABILITATION CENTRE AND LENTEGEUR PSYCHIATRIC HOSPITAL

5.7.1 Background

In a joint press release in 2006 (Uys & Brown, 2006) the Western Cape provincial Minister of Health and Western Cape Premier announced the first healthcare PPP for the provincial health department: a partnership whereby the non-core functions of two local health facilities would be rendered by a private entity. The 12-year PPP (amounting to a nett present value at the time of R344 million) involved rendering day-to-day facilities' management (gardening and cleaning), as well as regular maintenance of buildings and medical equipment at the 208-bed Western Cape Rehabilitation Centre (WCRC) and the 940-bed Lentegeur Hospital (LGH), a psychiatric facility. The two health facilities occupy adjoining sites in Mitchell's Plain and both are part of a much larger precinct that includes other health and education facilities.

With the intention of combining various rehabilitation units into one 'state-of-the-art' facility, the WCRC was constructed on a portion of the Lentegeur Hospital site by the WCG Department of Transport and Public Works in 2003/4 at a cost of R100 million (Roman, 2010:4; WCGDoH, 2015:17). With the intention of keeping this new facility in optimal state, a PPP was considered the most viable long-term option (Roman, 2010:5). Considering their proximity and similar need, the LGH was included in the facilities management PPP in order to consolidate what was already being provided by various outsourcing arrangements (Roman, 2010:6).

From the contract date start in March 2007 the winning bidder, Mpilisweni Facility Services (a BEE consortium involving Drake and Scull, Vuya Investments and Folang

Joint Venture), provided all the funding (no debt was required), with the Western Cape Government Department of Health (WCGDoH) providing a unitary payment of R30 million per annum and annual escalation tied to the Consumer Price Index (CPI) (Aiello, 2014:14; Roman, 2010:14).

The PPP listed the following objectives:

- "Obtaining private sector efficiency and know-how on non-core needs,
- Provision of preventative [scheduled, not just emergency] maintenance …,
- Obtaining economies of scale by combining several outsourced contracts and in house functions at both hospitals,
- Improved governance in that the Province only has to deal with one party for both hospitals."

(Aiello, 2014:14)

Services were not provided equally to each facility and the WCRC received the full scope while LPH (indicated as LGH in the table below) received only the soft facilities management, minus linen and laundry and utilities management.

Table 10: Facilities provided by the private partner per institution

Service	LGH	WCRC
Soft Facilities		
Catering	Yes	Yes
Cleaning	Yes	Yes
Grounds and Gardens	Yes	Yes
Linen and Laundry	**No**	Yes
Pest Control	Yes	Yes
Security	Yes	Yes
Utilities Management	**No**	Yes
Waste Management	Yes	Yes
Helpdesk Services	Yes	Yes
Hard Facilities		
Medical & Therapeutic Equipment (Procurement, maintenance and replacement)	**No**	Yes
Estate Maintenance and Non-Medical equipment. (Procurement, maintenance and replacement)	**No**	Yes

Source: Roman (2010:3)

5.7.2 Procurement

There is a lack of literature available on the procurement process, which makes it difficult to assess this item. This is an obvious concern, with lack of transparency being regularly cited as a criticism of this procurement mode. This is not to say that the proper processes were not followed – the project was listed as approved by the PPP unit in the regular periodical, PPP Quarterly. It is therefore difficult to gain first-hand knowledge of the affordability, value for money and risk transfer items as these factors are reviewed based on secondary data analysis.

5.7.3 Critical success factors

5.7.3.1 Affordability

In a 2010 report affordability is described simply as being ringfenced by the WCGDoH according to the terms of the agreement. This leaves the cost of the PPP as a simple line item in the annual budget vote (Roman, 2010:14). Being locked into a unitary fee escalated by CPI makes budget forecasting fairly straightforward. Without further information on this item it is difficult to assess this aspect in any more detail; however, it suffices to say that the project could become a regular feature of the annual budget process, with its annual escalation making it a fairly straightforward project which to allocate funding.

5.7.3.2 Value for money

While the abovementioned report indicates that value for money (VFM) is being gained through the PPP, there is little justification as there is no Public Sector Comparator (PSC) against which to measure this. What the report does indicate is that in 2008/9 the cost per patient-day-equivalent (PDE) was recorded as R597.13 for LGH and R1 207 for WCRC. When compared with a report comparing costs between public and private healthcare (Ramjee, 2013), the cost of delivering hospital services in the public healthcare system shows that the average PDE was R1 543 in 2010/11 (adjusted to

R2 237 for all hospital types). At the rates given by the case study reports for WCRC and LGH above, adjusting for CPI three years later reveals figures of R1 407.83 for WCRC and R696.49, which is indeed below the average PDE cost in the 2013 report.

Table 11: Table indicating patient-day-equivalent consumer price index adjusted for period 2008-2011

YEAR	2008	2009	2010	2011
CPI	N/A	*6.16%	*3.34%	*6.32%
WCRC PDE	R1 207.00	R1 281.35	R1 324.15	R1 407.83
LGH PDE	R597.13	R633.91	R655.09	R696.49

(*CPI figures according to Inflation.eu, 2019)

Source: Researcher's Own

Table 12: Average cost per patient-day-equivalent (PDE) for public hospitals in 2010/11

Average cost per PDE for district hospitals	1,543
Adjustment factors for mix of hospital types	1,45
Average cost per patient day equivalent for all hospitals	2,237
Proportion of hospital costs related to personnel	65%
Proportion of personnel costs related to medical practitioners and specialists	40%

Source: Ramjee (2013:ii)

Although this analysis is rather crude and does not attempt to be a substitute for a full VFM test as per the standards set by the National Treasury it does at least affirm that the PPP is providing some form of value. Further, the comparison report indicates that private hospitals have an average PDE of R2 839 (Ramjee, 2013:iv). If the PPP is bringing private sector value to a public facility (albeit just for non-core services) at well below the cost then, again, this reaffirms value for money.

5.7.3.3 Risk transfer

This aspect of the PPP raises some questions about whether this particular arrangement is in fact a true PPP or more of a fixed-price outsourcing arrangement. The risk matrix provided in the report (Roman, 2010:10-14) indicates a list of duties to be provided by the private partner and not a list of risks assigned to each party in the PPP as seen in other examples. The risks to the private party that can be gleaned from the matrix are the following:

- Increasing sectoral costs associated with providing the cleaning services;
- FOREX fluctuations;
- Responsibility for providing equipment, technology, staff, ICT systems; and
- Performance risk (non-performance being subject to financial penalties).

The following risks are noted as either shared or passed on to the public partner:

- Food inflation (noted as possibly requiring renegotiation in terms of the annual CPI inflation adjustment to the unitary charge);
- Latent defects (building defects for which the original contractor or professional design team is responsible – this is standard in the construction industry); and
- Changes in policy and legislation.

There is a concern regarding the degree of risk being absorbed by the private consortium. Taking into consideration the relatively low level of risk being taken on by the private partner evidenced by the almost complete lack of private capital injection and the transferring of numerous risks to the public partner, the PPP appears to resemble a simple outsourcing arrangement, i.e. the appointment of a management contractor. Without further information to ascertain whether or not this is indeed the case, it is the opinion of this researcher that this is not a PPP in the pure sense as it does not fully meet the basic requirements of affordability, value for money and risk transfer.

One aspect of the PPP does warrant specific mention, and this is the helpdesk that is a requirement of the project in order to ensure that issues are logged and addressed

timeously. The helpdesk allows the contractor to ensure that turnaround times for various issues are optimised in the best interests of delivering a high-quality service. Failure to meet agreed performance criteria is met with financial penalties. One aspect of the risk matrix is disconcerting and this relates to penalties being 'stringent' and, depending on the service provider (presumably a subcontractor), the penalty could outweigh the particular service fee leaving the consortium to fund the penalty fee. This appears to be an example of poor contract structuring, the mitigation measure being to renegotiate this aspect. It is not known whether this has been actioned.

5.7.4 Summary

Although meeting at least two out of the three essential criteria for a PPP (questions surround the degree of risk transfer), this project appears to garner benefits to the public partner, namely bundling together numerous outsourcing contracts into one and ensuring issues are logged through a centralised call centre, failing which penalties may be levied against the private partner. Ultimately there is a concern regarding whether this is a pure PPP in terms of the presence of the three core criteria or more of an outsourcing arrangement, i.e. a management contract where a private entity subcontracts the various requirements of the public party for a set unitary fee.

5.8 CHAPTER SUMMARY AND FINDINGS

The case studies indicate that there are several factors common to the success of PPPs in the local context. The case study research also indicates a dichotomy of the factors attributing to the success of the various projects, i.e. factors that form an essential foundation for PPPs and slightly more peripheral factors that attribute to optimising the partnership. The former set relates to the factors prescribed by the National Treasury, namely affordability, value for money and risk transfer, but also implicitly includes the required regulatory framework to permit PPPs to be considered in the first place. The latter set includes clear performance specifications and monitoring, political will and leadership/advocacy, innovation, PPP specialist input and oversight (this is a requirement for both the public and private sector alike), goal alignment, technical team continuity (again, this applies to both the public and private sector) and, finally,

flexibility to ensure that the partnership may continue offering value when circumstances change.

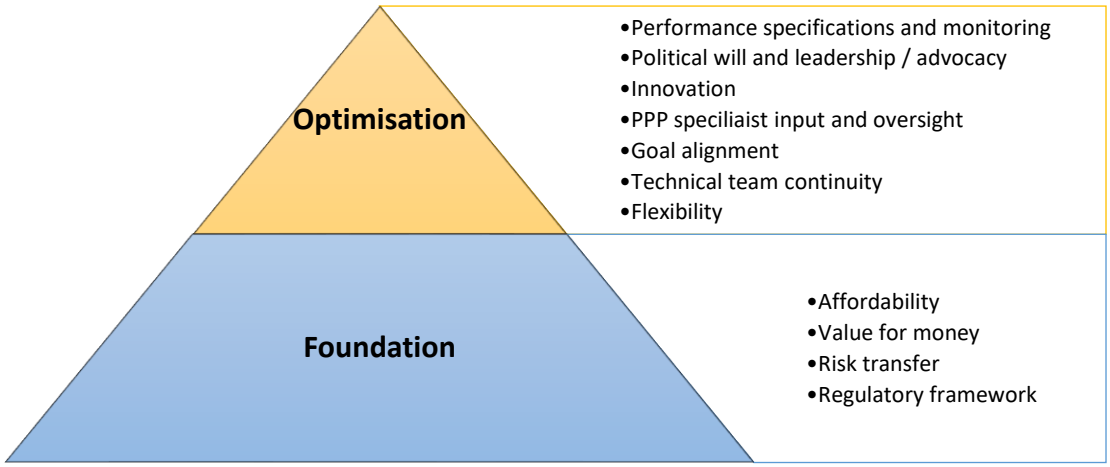


Figure 22: Proposed value hierarchy of foundational vs. optimisational critical success factors (Researcher's Own)

The quantitative aspect of the CSFs elicits the information in the table below. This list does not attempt to be comprehensive and needs to be taken into context given the fairly limited information provided by the case study material in some cases. It is therefore inadequate to state that simply because a factor was not discussed it is not relevant or included in the review. What the quantitative analysis confirms is that performance specifications and monitoring are far more critical in the local context than the literature review provided. With a focus on getting the deal in place, the general literature available overlooks this aspect of a PPP: the importance of the various factors related to management during the operational period. The case studies identify the need for performance monitoring to ensure standards are maintained, continuity of specialist and technical input from inception into the operational phase, and flexibility to respond to new realities or altered states.

Table 13: Critical success factors in a review of case studies

	Affordability	Value for Money	Risk Transfer	Political will & leadership	Innovation	Flexibility	Goal alignment	Performance specifications & monitoring	PPP specialist oversight	Technical team continuity
Chapman's Peak Drive	✓	✓	✓		✓	✓		✓		
Gautrain Rapid Rail Link	✓		✓	✓	✓			✓	✓	✓
Inkosi Albert Luthuli Central Hospital	✓	✓	✓	✓	✓			✓		
Universitas and Pelonomi Hospitals	✓	✓	✓	✓			✓	✓	✓	✓
Humansdorp District Hospital	✓	✓	✓	✓			✓		✓	
Western Cape Rehabilitation Centre and Lentegeur Hospital	✓	✓						✓		
Totals	**6**	**5**	**5**	**4**	**3**	**1**	**2**	**5**	**3**	**2**

Source: Researcher's Own

A ranking of the CSFs according to the above table provides the following:

1. Affordability
2. Value for money / risk transfer / performance specifications and monitoring
3. Political will
4. Innovation/PPP specialist oversight
5. Goal alignment/technical team continuity
6. Flexibility

The framework above makes it possible to investigate the quantitative and qualitative dimensions of these various factors in the current environment to evaluate the feasibility of an infrastructure PPP to deliver public schools in the local context. It is important to note that while the above CSFs cover most of the factors pertinent to PPPs, they do not cover some aspects relevant to the research project at hand. These relate to more elementary factors that need to be in place in order to successfully implement a PPP.

The factors include public sector capacity, i.e. internal PPP specialists directly employed by the state; private sector capacity, i.e. external PPP specialists, consultants and contractors alike; and conditions in the current construction sector, i.e. economic stability and market-based competition. These factors are important as they influence the abovementioned CSFs, such as value for money, risk transfer and political will. These factors are fundamental to the research scope and measurables. As such, they are included in the survey questionnaire and interviews reviewed in the next chapter.

6: EMPIRICAL FINDINGS AND ANALYSIS

6.3 CHAPTER INTRODUCTION

Having established the scope of relevant CSFs in the previous chapter through a secondary data analysis of case studies of several local PPPs, the empirical data collection now focuses on measuring these factors in the local context. Having reviewed the CFSs identified it is necessary to consider which should be measured, and to adjust them to be more easily understood for measurement purposes.

The foundational CSFs referred to in the previous chapter remain as identified:

1. Affordability
2. Value for money (VFM)
3. Risk transfer
4. Regulatory framework

At this point it is important to note that the optimisation CSFs identified in the previous chapter could be better described as resulting from root causes or a combination of root causes. The optimisational CSFs and their considered root causes are summarised as per the below:

Table 14: Optimisation CSFs and their root causes

Optimisation Critical Success Factor	Root cause
Performance specifications and monitoring	Public sector capacity
Political will and leadership / advocacy	(no underlying cause, remained as is)
Innovation	Combination of Public sector capacity and Private sector capacity
PPP specialist input and oversight	Private sector capacity
Goal alignment	Combination of Public sector capacity, Private sector capacity and Transparency
Technical team continuity	Combination of Economic stability and Political will
Flexibility	Combination of Public sector capacity, Private sector capacity and Transparency

As such, the list was shortened to the below root causes. Note that one of the root causes impacting on Value for money is considered to be “market competition in the local construction industry” and, as such, it was considered important to measure this aspect.

1. Political will and advocacy
2. Transparency
3. Public sector capacity
4. Private sector capacity
5. Economic stability
6. Market competition in the local construction industry

Empirical data-collection focussed on two measurable attributes of the above CSFs: perceived importance and perceived prevalence or presence in the current environment. Respondents were asked to rate each factor firstly in terms of their perceived importance and then in terms of their perceived prevalence or presence in the current environment.

In addition to the CSF measurements, questions were included regarding perceptions about PPP financing options, preferred PPP infrastructure types and the involvement of PPP role-players.

6.2 QUANTITATIVE FINDINGS

6.2.1 Critical Success Factors – Importance

Respondents were asked to supply a measurement for each of the ten factors based on a modified Likert scale from 1 (not at all important) to 5 (of critical importance). The tabulated data is expressed in the figure below.

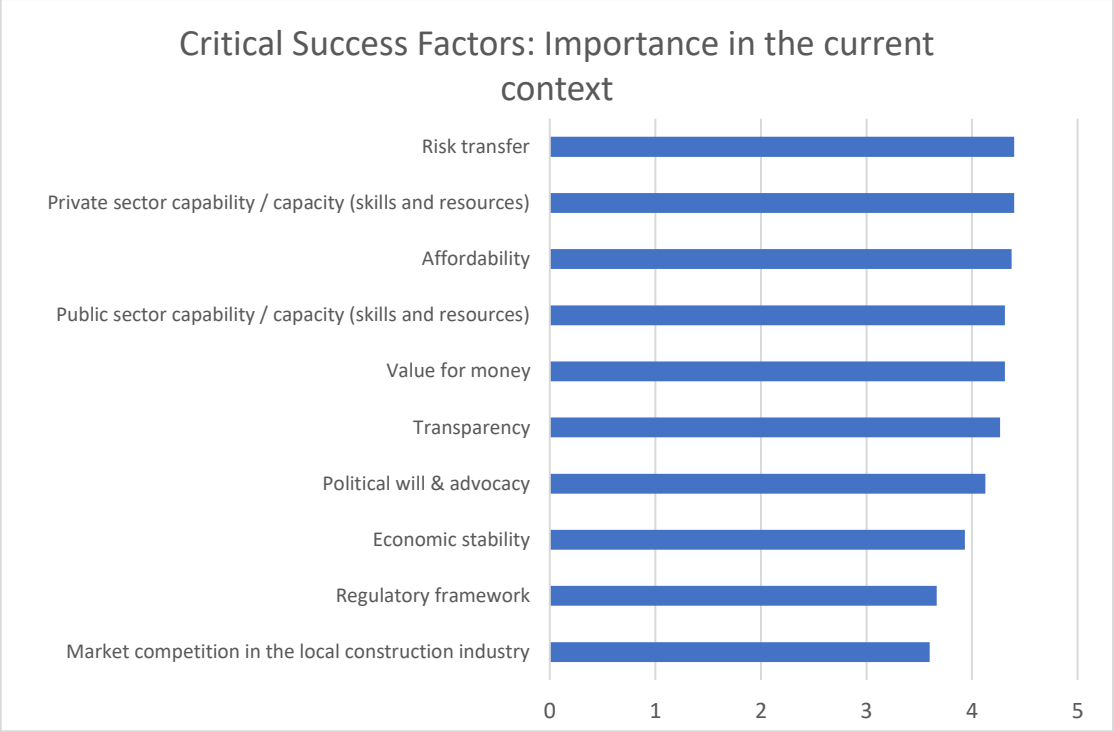


Figure 23: Critical success factors in terms of their relative importance

It is no surprise that one of the foundational CSFs from the literature review, risk transfer, is listed as most important. What is notable is that private sector capacity and public sector capacity rank 2nd and 4th on the list respectively, flanked by the other two foundational CSFs, affordability and value for money, at 3rd and 5th. It is interesting to note that political will and advocacy, considered one of the top optimisational factors in the case studies, ranks only 7th of the ten factors.

6.2.2 Presence/Prevalence of Critical Success Factors

When respondents were asked to rate the perceived relative prevalence or presence of the same factors in the current environment most of the factors remained in a similar position. The exception was public sector capacity, which moved from an importance ranking of 4th to last on the list of prevalence.

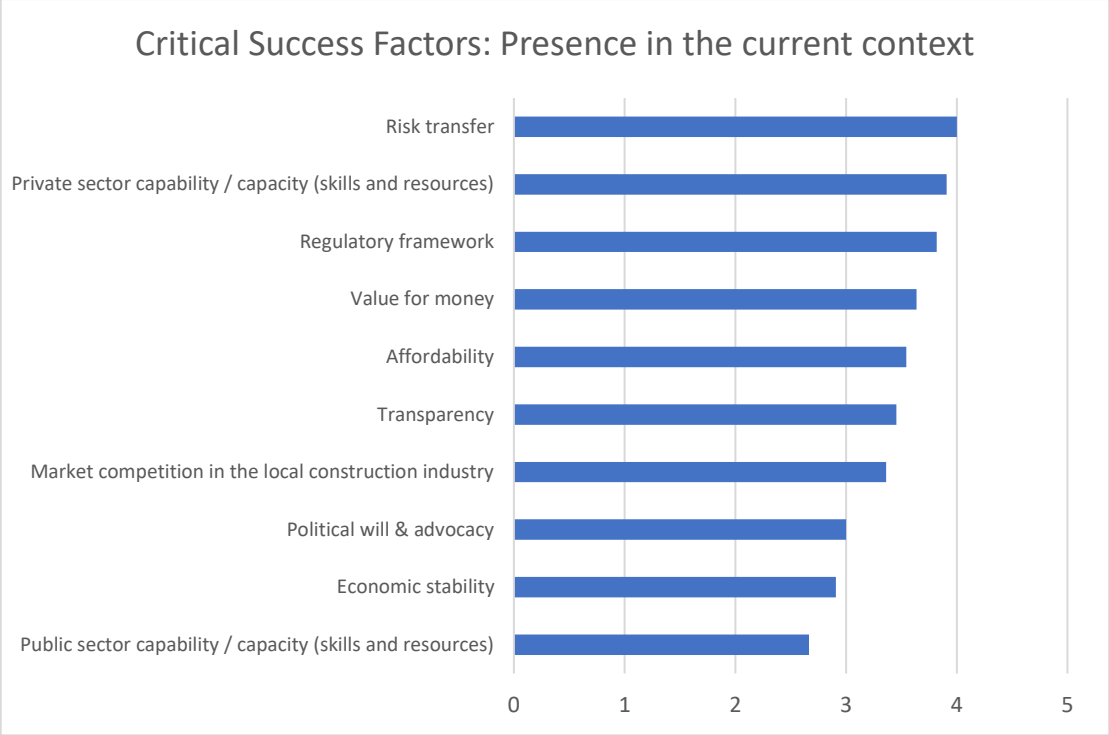


Figure 24: Critical success factors in terms of their relative presence in the current context

While the findings above may not necessarily represent a considerable deviation from what is considered important, some rather interesting insights are obtained when the two data sets are superimposed.

6.2.3 Relative Difference between Critical Success Factors' Importance and Prevalence in the Current Context

The ten factors were analysed in terms of the absolute difference between their importance and prevalence to understand significant discrepancies. This measurement is critical to identifying where efforts should be made to address imbalances.

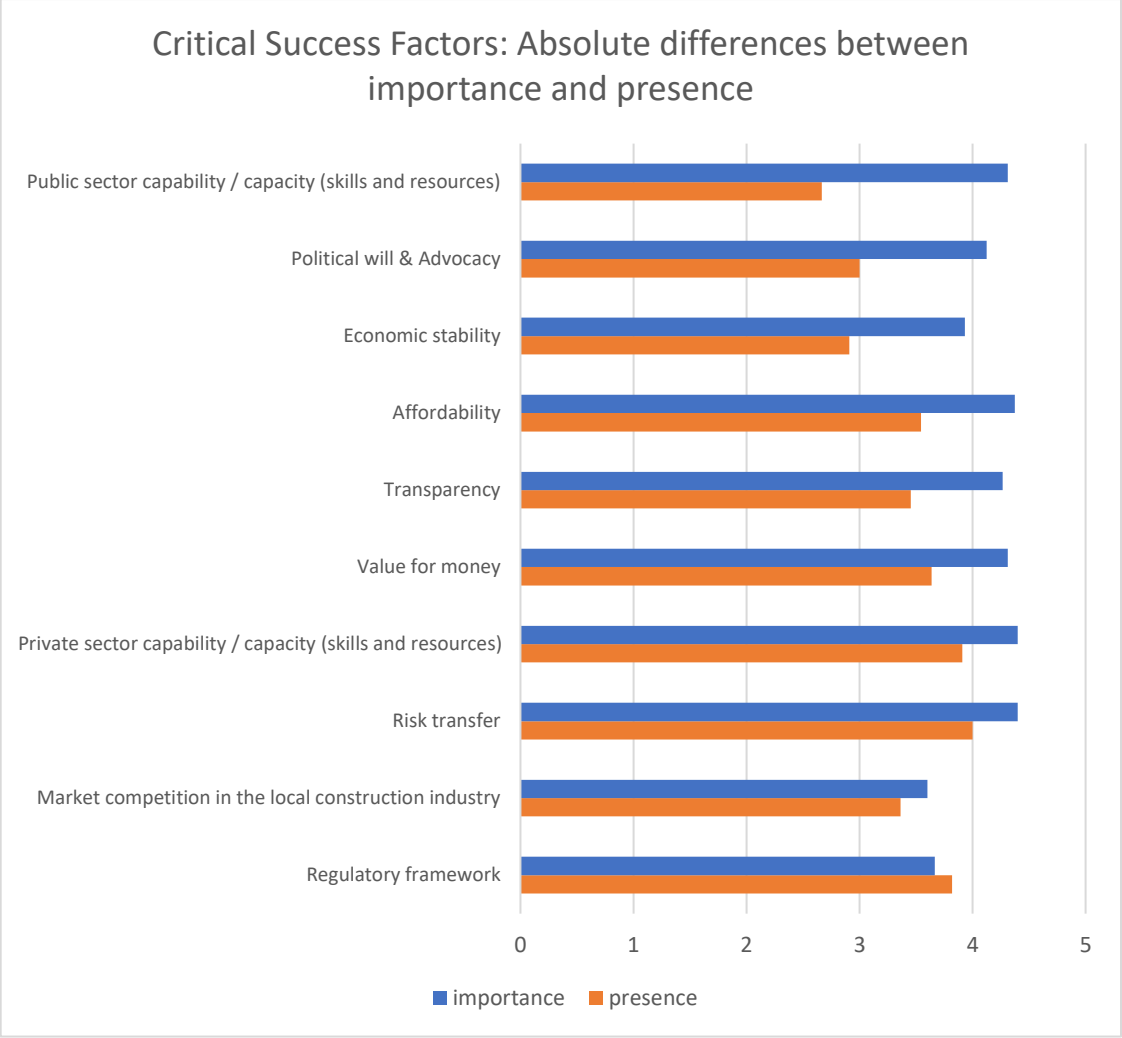


Figure 25: Critical success factors in terms of the absolute differences between importance and presence in the current environment

Public sector capacity ranks top of the list in terms of differences between importance and prevalence. This finding indicates that capacity building among public sector implementing agencies should be addressed in order to provide fertile ground for effective implementation should a PPP be considered. Second on the list is political will and advocacy, which is closely allied to public sector capacity in terms of falling under the responsibility of government to address. Only with regulatory framework does the presence of a factor outweigh its perceived importance. This is arguably due to the strong PPP framework stemming directly from Section 16 of the PFMA and which is substantially aided by the various PPP technical manuals and processes put in place by the PPP unit within the National Treasury. This could be linked to a perception that the present regulatory framework is over-prescriptive and viewed as a potential constraint,

i.e. there is too much ‘red tape’ when entering into a PPP. This will be investigated in more detail during the qualitative analysis.

6.2.4 Public-Private Partner Finance

When respondents were asked to identify how they thought PPPs should be financed, the majority agreed that the private partner should provide the majority of the finance with a relatively small government contribution. This is an interesting finding considering that most public megaprojects are predominantly regulatory framework government funded. This is also at odds with the findings of the case studies chapter where it was noted that the Gautrain’s ultimate R30bn delivery cost was subsidised by the national and provincial treasuries to the order of 88%, while even the fairly modest Chapman’s Peak Drive PPP (R350m) was 50% subsidised by provincial government.

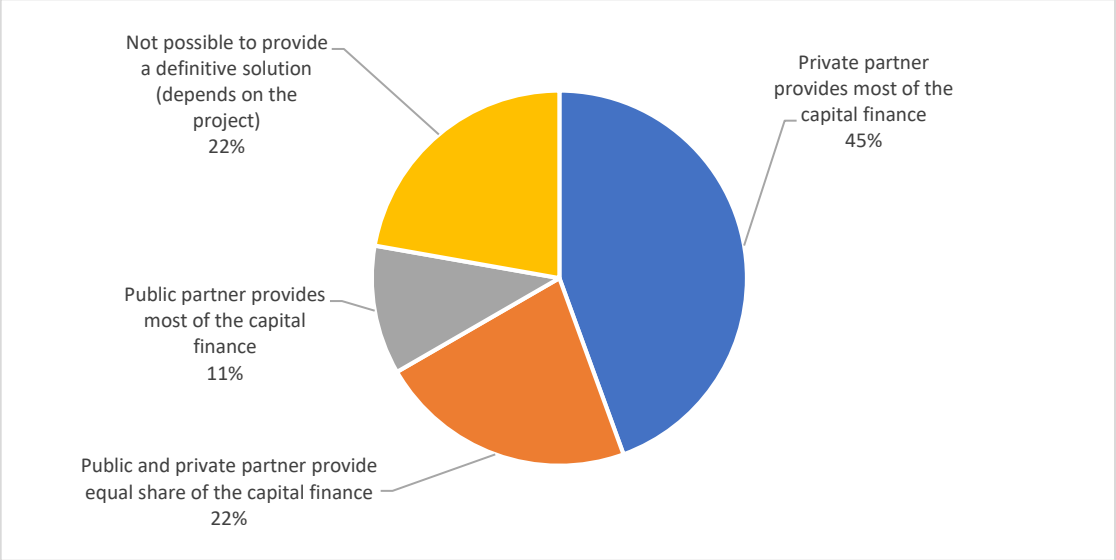


Figure 26: Public-private partnership financing option preferences (n = 9)

While opinions on this item were reviewed during the quantitative phase (the interviews) it is worth noting that timely access to capital for effective cashflow management is the key driver for this finding. Concerns about the adverse processing time for direct interim payments by government departments (the scourge of late payments) appear to be tipping the scales towards a preference on the part of private

partners to favour financial arrangements through private financial institutions who are better equipped to release funding more effectively than the public sector, leading to improved cashflow, especially during the intense construction phase.

6.2.5 Public-Private Partner Infrastructure Suitability

As noted in the literature review, public schools are not considered a complex infrastructure type. Their programmatic elements are generally modular and repetitive with classrooms, which are uniform in layout and specification, forming the single largest collective element in the accommodation schedule of a typical public school.

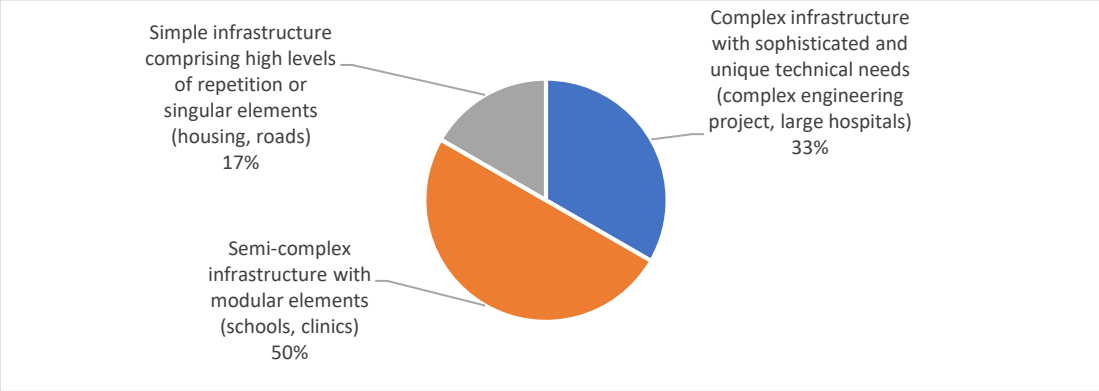


Figure 27: Public-private partnership infrastructure typology preferences (n = 12)

In terms of the type of infrastructure considered appropriate for PPPs, most respondents identified semi-complex infrastructure (such as clinics and schools) as outright preferable. This finding is therefore in line with the selection of public schools as an appropriate building typology for a PPP.

The next question relates to the quality expected to be delivered by an infrastructure PPP. Results are illustrated in the figure below.

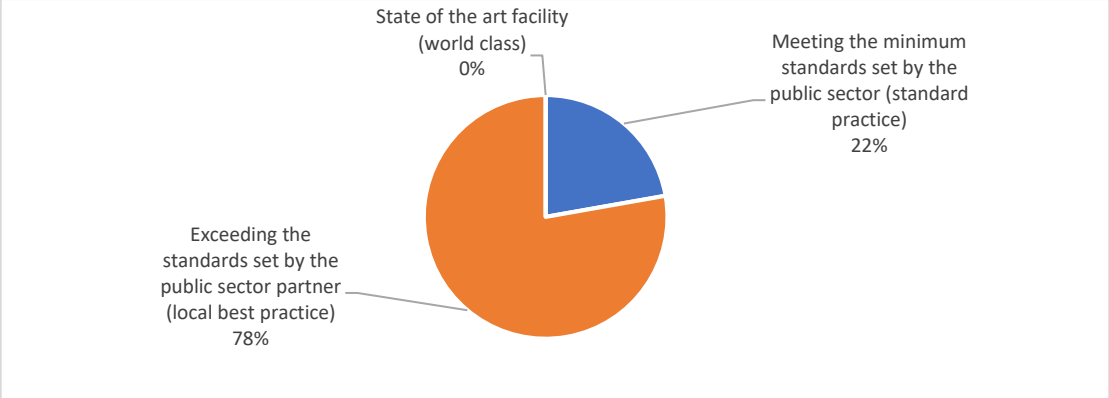


Figure 28: Public-private partnership level of service expected (n = 9)

Interestingly, no respondents selected 'state of the art facility'. At 78%, 'exceeding the standards set by the public sector partner' was the mode while 'meeting the minimum standards' was found to occupy the remainder. The reason this is interesting is because often PPPs are associated with extracting maximum value out of the private sector, and this is associated with achieving best possible quality. What many overlook is that value is in this instance noted as achieving a level of service commensurate with balancing the best of both worlds: acceptable level of service at an equally acceptable cost. This aspect is given more credence in the qualitative findings.

6.2.6 Perception of Public-Private Partner Role-Players in the Current Environment

It is of critical importance to gauge perceptions around various key stakeholders in the current political, economic and technical environment. This includes the Western Cape government (as client and PPP initiator), the local construction industry (consultants and contractors) and private financial institutions (commercial banks and private equity providers). A Likert scale was used to measure this perception amongst respondents. These findings were ranked in order of most to least confident:

1. Independent PPP specialists and consultants
2. Contractors in the local construction industry
3. Private financial institutions
4. The Western Cape government

The perceptions of respondents indicate that there is a critical lack of appetite on the part of the provincial government to enter into a PPP. This result links back to two critical success factors: political will (desire to enter into PPPs) and public sector capacity (government's ability to promote and administer a PPP).

Despite pessimism surrounding the perception of government's intention, when respondents were asked whether they would consider getting involved in a PPP the majority (56%) selected 'absolutely yes'. The remainder indicated that they were either unsure or unable to participate in a PPP due to their circumstances. None of the respondents selected 'absolutely not'.

6.3 QUALITATIVE FINDINGS

In this phase of the research project, empirical data was collected through depth interviews conducted with PPP specialists, infrastructure professionals and academics with a PPP interest. The interviews were semi-structured and used a set of questions that took their cue from the survey questionnaire feedback. The intention was to delve into reasons underpinning the findings in the quantitative survey and uncover potential solutions as how to address them.

The results of the quantitative data analysis phase directed the researcher to explore the following topics or factors directly influencing PPPs:

1. The significant shortage of public sector capacity to implement PPPs;
2. Lack of political will and advocacy acting as a barrier for the public sector to consider PPPs as a delivery option;
3. Current economic instability/volatility does not favour initiating long-term contracts, such as those contemplated in PPPs;
4. Affordability and value for money are currently significant barriers to the public sector entering into high-value long-term contracts to deliver projects or programmes;

5. Transparency is a concern in the current climate in terms of the potential for misuse of state funds – a major concern regarding the procurement of large-scale infrastructure projects, such as those contemplated for PPPs;
6. Private sector capacity may be a gap in terms of providing specialist skills and capacity necessary to deliver PPPs;
7. While risk transfer is considered the most important factor for entering into a PPP there is a low degree of confidence that this may be achieved;
8. Although considered the least important factor and one linked to current economic volatility, there is a lack of sufficient market competition in the current construction industry, which could be a barrier to achieving value for money; and
9. The current regulatory framework is more than sufficient for PPPs to be properly regulated in the current local environment.

In addition to feedback on the above factors, the open-ended nature of the interviews allows for a broader discussion of the following topics:

1. The applicability of public schools as the delivery objective;
2. PPP financing arrangements;
3. Unintended consequences of PPP arrangements; and
4. Suggestions to improve the environment for PPPs.

6.3.1 Public Sector Capacity

Ranked as the number one factor in terms of the deficit between importance and prevalence in the current environment, respondents highlighted two dimensions to describe the shortage of PPP specialists: (1) the number or quantum of PPP specialists presently employed in the local public sector; and (2) the depth of understanding infrastructure officials generally have in terms of their knowledge around the PPP mode. Neither dimension was seen as a primary issue and it was widely noted that there is an equal deficiency in both dimensions. The reasons levelled at this issue were identified by one respondent who noted that most government officials who have been involved in a PPP only ever deliver one project through this mode. This is due to a

combination of scarcity of implementation, and therefore lack of exposure, as well as 'getting their fingers burned' during the initial encounter and so shying away from subsequent engagements. The latter issue is a concern as there is a general view that PPPs require expertise that is either not considered normal and places officials outside of their comfort zone, or that the project they were involved in did not deliver on intended objectives. This may have resulted in officials preferring to avoid future encounters rather than unpack what may have gone wrong and why. A secondary issue related to this factor involves a deficiency of in-house technical expertise to support officials in this mode, which has obvious repercussions for risk-averse civil servants. This is understandable given the general lack of infrastructure professionals in the public service, a topic which is well-documented. Given their inability to adequately manage a novel delivery mode, it is understandable that there should be an aversion to electing to get involved in future projects if the experience was negative.

But why would government need internal PPP specialists in the first place when there are plenty of private sector specialists in the field? This goes back to the role of government officials involved in transactions from the client's side. Traditional infrastructure procurement (TIP), as established in the literature review chapter, is generally regarded as significantly resource-intensive in terms of both internal professionals and external consultants. This assumes that extracting optimum value from external resources relies on the proficiency of a client's internal resources to set performance standards and effectively monitor and evaluate their achievement. This is equally true of PPPs, the difference being that in TIP the required work is generally singular in nature, tied to well-regulated and standardised professional scopes and the delivery processes and outputs established through many years of experience in this mode. In a PPP there is a need for officials deployed in these units to understand and appreciate the many facets of both the public and private partners' needs, business models, legal frameworks, and so forth. With the preference towards TIP, government infrastructure delivery components generally recruit professionals who have extensive knowledge and experience in a singular field. There is no need to recruit specialists who have a complex private sector background and exposure to the various spheres of law, management and business modelling. Further, while this may describe the demand side of the equation it is generally accepted that specialists with the type of knowledge or background that lends itself to PPPs have a preference for employment in the private

sector due to the open-ended nature of their field and the ability to shift quickly between projects or deployment, with government being the very antithesis of this desire.

This is particularly telling in the knowledge base of the respondents during this phase of data collection. The officials interviewed were not singular infrastructure specialists, i.e. construction project managers, architects, quantity surveyors or engineers, employed to deliver infrastructure using standard contracting forms and needing just the depth of their knowledge about their profession to guide them. Although they may have initially entered this arena through a singular professional background as described above, most PPP specialist officials displayed a broad and complex knowledge of both public and private sector property transactions involving property development, financial modelling, procurement, relevant legal and regulatory frameworks and a distinct aptitude in negotiating the complex interplay between the various role-players in order to extract optimum value. This last aspect is of particular interest and warrants discussion. It may be argued that, on the whole, government officials are typically known for an interest and proficiency in meeting the relevant compliance standards set for the field of work they dispose over. In contrast, the officials interviewed for the purposes of this project indicated a keen interest in extracting optimum value out of the frameworks pertaining to a given work scope. They describe instances of using the available policy frameworks at their disposal to unlock rather than constrain processes. It is also evident that the officials interviewed had a far wider field of knowledge of, and interest in, their immediate and peripheral environment, their interests sometimes going somewhat off topic on what seemed like a fringe area before tying it back to the subject at hand. The assumption is this aptitude speaks to a need to be able to respond to a complex and ever-changing environment. When asked to list the limiting factors on PPP projects in their sphere of the public sector, officials listed risk aversion, lack of in-house capacity, little understanding of contracting versus partnering, lack of good transaction advisors in the private sector (little competition and costly), a distinct lack of skills (especially with regard to project management and contract administration), delayed or deferred decision making on the part of executive officials and a general lack of innovation in the public sector (with a focus on compliance and rule adherence).

Lack of public sector capacity also has a strong bearing on value for money, and one participant notes that a lack of officials well-versed in PPPs limits a public sector

entity's ability to ensure VFM is achieved at every point in the value chain. This is consistent with the assumption made above with respect to TIP, and PPPs are not immune. Although this seems at odds with the understanding of PPPs when considering VFM is a prerequisite during the National Treasury's stringent PPP approval process the respondent noted that this is critical during the long-term off-take or operational period, inconsistent application during this period linked to adverse effects on extracting and ensuring VFM in the long-term. It is therefore important to understand that PPP transactions are not self-reinforcing. Despite the nature of the agreement, value for money relies on constant monitoring by a capable and capacitated public partner to ensure the private sector partner delivers according to set performance specifications. As noted in the Edinburgh Schools disaster, deviations or relaxations in terms of the public partner's monitoring and evaluation mandate can have adverse effects as the private partner finds ways to cut corners in an attempt to extract value for itself.

6.3.2 Political Will

Respondents echo the findings in the literature review and case study analysis, noting that due to the scale and complexity of the projects usually associated with PPPs it is critically important to have a champion at a sufficiently high level to advocate for and provide decision-making impetus to push transactions through their often lengthy and complex approval process. In the present environment most respondents note general lack of political will being due to lack of risk appetite on the part of high-level officials and politicians, as well as the recent track record of abuse and corruption in large-scale infrastructure transactions causing scandalous political fall-out. Respondents also cite the lack of risk appetite being a result of a lack of innovation and appetite to try untested forms of delivery due to the 'it's been done like this for so long, why change it now?' paradigm. Underscoring this lack of risk appetite and follow-through is the number of failed starts in the local PPP arena. This is evident when reviewing the latest list of PPPs on the GTAC's website: 87 projects are currently in various stages of planning while only 25 have come to fruition, amounting to a success rate of 22% (GTAC, 2017; GTAC, 2019).

That said, a respondent identified an aspect of advocacy overlooked in the literature, namely to not underestimate the ability of executive officials deployed in public

departments to advise, advocate and push the agenda of strategic transactions, such as PPPs, in the interests of service delivery. This ability to influence does not come for free, though the respondent cites the necessity for a proven track record of successful delivery and capable officials (note the link to public sector capacity) to generate confidence for political heads to support these and similar strategic proposals. In the Western Cape this aspect is supported by the perception that the province is able to deliver on planned objectives in the infrastructure arena and is therefore more capable of adopting new, innovative or untested approaches to solving infrastructure challenges.

6.3.3 Economic Stability and Market Competition

The current construction industry is in a state of significant flux with large contractors such as Basil Read and Group 5 having recently filed for business rescue and many others unable to achieve sustainability in what is considered a turbulent market. Reasons for this range from large government infrastructure contracts being in short supply due to the shortfall in the fiscus, down to ground level volatility in the construction sector with reports of a 'construction mafia' operating in the sector whereby groups target contractors with threats of violence and intimidation to force subcontracting arrangements involving a stake in the profits (Donelly, 2019). As such, there is general consensus amongst those interviewed that entering into large, long-term contracts in an environment fraught with risk of failure is a poor choice.

On the other hand, some respondents note that in the current environment market forces could permit significant value as the private sector reconsiders their profit margins in the interest of maintaining cashflow. This high degree of competition as contractors fight for work means that, despite the volatility, risk tolerant clients can achieve significant value in the long run if they capitalise now to lock in value through long-term contracts such as a PPP.

6.3.4 Affordability

Of those interviewed, public sector officials are first to latch on to affordability as a fundamental criterion for the initiation of PPPs. At present, public budgeting in SA is

conducted in three-year cycles or medium-term expenditure frameworks (MTEFs). This framework forces the public department to look beyond the coming financial year, but also to confirm the impact of longer-term projects or programmes to ensure sufficient budget provision in the outer years (years two and three of an MTEF cycle). With PPPs becoming contingent liabilities over even longer terms (30 years in some cases) it is imperative that departments understand the implications of locking in a line item on a budget document for this period. The impact of locking in budget for a PPP means that funds may not be made available for other projects or programmes for the period of the PPP. This means that any decision to proceed with a large project that is going to tie up a significant slice of a department's budget for many years is unlikely to be taken lightly.

Affordability is intrinsically linked to the nature of the funding mechanism. If the public partner is providing a significant portion of the capital cost, as in the Gautrain, then it is critical that the public partner is aware of its long-term commitments and that adequate capital budget is ring-fenced for the project at hand. Alternatively, if the private partner is providing a significant portion of the capital cost and the public partner is entering into a long-term off-take agreement then this finance needs to be ring-fenced for the duration of the PPP period. In user-pays models, the private partner typically finances and operates the facility at their own cost, but in the event that the private partner is unable to recover sufficient funds to turn a profit, this risk is often shared by both parties, such as in the Chapman's Peak Drive case study where the provincial government provides security in the event that the pass is to be closed. One respondent notes that innovative funding models should be explored upfront by private partners in order to increase the scope of affordability options. In the case of public schools, for instance, the question was posed as to whether unused public buildings could be converted into schools maintained and operated by a private partner. This is an interesting concept as the biggest single line item in a feasibility study for private developments is usually the fixed cost of the land or buildings, which typically makes the single biggest impact on the rate of return. If this constant is removed from the equation, projects could be made considerably more appealing to private developers.

Respondents also note that affordability has to be measured against the expected quality of the service or deliverable. Public sector clients have been known to raise the performance criteria for projects in order to attain a level of quality well in excess of

what is deemed acceptable. In these instances costs tend to spiral beyond what may have originally been considered as having a direct effect on affordability (the ability of a client to budget for the project), as well as value for money. Many projects have fallen foul of this expectation at an early stage where the public sector expects the private partner to deliver a premium product or service on a 'best-value' budget.

6.3.5 Value for Money

Although critical at procurement stage, value for money or VFM is often seen as not so important during the off-take or operational period. Some respondents reiterate this case as the theory is that VFM is 'baked in' at procurement stage and forms the basis of the transaction going forward. However, some respondents disagree with this due to the need to be able to manage the PPP consistently during operations in order to ensure that the performance criteria set at the outset are met during the period of the contract as failure to do so has considerably long-term effects on overall VFM. Even small VFM transgressions can add up and be amplified in the long term.

As mentioned above under affordability, VFM is highly sensitive to the level of service or deliverable required. Getting the balance wrong could have considerably adverse effects on the actual value of the transaction and the public sector could end up paying far too much for something that could be delivered more modestly. Added to this is the perception that public funds may be being squandered on a given project and potential public fallout may ensue.

Lastly, a respondent notes that the VFM calculation from the PPP manual, i.e. the Public Sector Comparator or PSC where a PPP project is compared against the option of being delivered via traditional infrastructure procurement (TIP), is often misunderstood. The process involves a fairly complex cost-benefit analysis of each option and VFM is declared if the PPP can prove better value on paper than the TIP model. Commentators and some respondents indicate that this process is often subject to optimism bias, where one expects to obtain better value than is really possible. As noted in the case studies, there is some flexibility in the VFM calculation. In some instances it is a fairly straightforward comparison (as in the hospital co-location project case studies); however, as seen in the Chapman's Peak example, a very complex calculation was

derived based on significant external factors which did not have a direct bearing on the project. These include macroeconomic factors such as impact on tourism and job creation with a secondary benefit being social development of local communities. These are incredibly difficult to analyse with any degree of accuracy upfront. The Gautrain presented a post-implementation analysis indicating the impact of developments in areas around the stations (in terms of property rentals), but again this would have been incredibly difficult to forecast at inception.

Ultimately, one respondent sums it up rather neatly, stating that although VFM is important due to the use or potential for abuse of state funds, it may not be the foremost factor under consideration if the real reasons for entering into a PPP is a lack of capacity or funding.

6.3.6 Transparency

Despite transparency being one of the factors noted as important for PPPs to be successfully implemented, a respondent notes that PPP transactions are often not transparent and yet proceed anyway. Another respondent identifies a critical dependency as the perception of integrity of the government implementing agent in the transaction. This aspect is given credence by lack of available information on some mega-project PPPs, such as the procurement process for the Gautrain Rapid Rail Link.

6.3.7 Private Sector Capacity

It is generally noted amongst respondents that experienced private sector specialists are critical to the success of any PPP. Specialists in PPPs must have a broad knowledge base and yet be sufficiently specialised to unlock the potential of what can become a very complex transaction.

One barrier to PPP initiation is the high cost of appointing transaction advisors, costs which become abortive in the event that the PPP is found unsuitable and does not proceed past initiation. Due to the time and effort that goes into the initiation phase of a PPP these costs may be considerable. This is one of the reasons why PPPs tend to be

favoured for large projects: the economy of scale of the project diminishing the relative impact of these initiation costs.

The skills shortage referred to in the literature review is a major worry amongst respondents. Respondents raise concerns about the number of specialists no longer available due to either shifting to other sectors of the economy or who have relocated overseas due to the shortage of work locally, both of which are significant factors in the depletion of the South African construction industry skills base. Due to the niche aspect of PPPs, even just a small reduction in the real number of specialists means that available capacity is significantly reduced. This is further reinforced by the fact the two respondents whose primary work is PPP consultancy have been directly affected by restructuring in their companies due to operational requirements, i.e. downsizing relevant departments or relocation/redeployment to other geographic areas.

Despite the above, the private sector respondents surveyed indicate a strong advocacy for the PPP mode that goes beyond their need to ensure stability within their field of work. Across the board is a strong belief that PPPs offer a win-win scenario whereby the public sector is provided with the resource base and value required which is leveraged off a private partner who is encouraged to explore innovative contracting and finance solutions, and structure themselves to the needs of the project or programme at hand. The underlying perception amongst private sector respondents is that in the current paradigm the public sector sets such rigid parameters for traditional infrastructure procurement that private consultants and contractors alike are given limited space to propose alternative strategies or leverage their knowledge, experience and available expertise (or ability to quickly attract required expertise) to structure the kind of financial, technical or procurement solution that may suit the deliverable.

This aspect essentially raises the following paradox which is key to balancing effective service delivery and value for money: how can the public sector transfer risk effectively without losing control of the arrangement? As the client, the public sector is accountable for every cent of taxpayers' money spent, and the primary risk for initiating a public infrastructure project is therefore the responsibility of the public sector implementation agency. However, in an environment where the private sector is not incentivised to use their resource capacity to optimise the achievement of the end goal, how is the public sector to strike the balance between risk transfer and control? The irony is not lost on

many private sector respondents who note that resource capacity (not just delivery capacity, but expertise in planning and optimising delivery) is the primary reason for contracting in the private sector in the first place. This leads to the responses around risk transfer, a fundamental aspect of achieving value for money.

6.3.8 Risk Transfer

It is noted in the literature review that the common theme around risk transfer is to transfer it to the party best able to manage that risk. As such, risk transfer is such an integral part of any PPP that, as noted in the chapter on the regulatory framework, the National Treasury include it as a fundamental requirement for approval forming part of Treasury Approval 1.

It is well documented that the public sector is predominantly risk averse and this remains a prevailing sentiment amongst public sector officials. The literature review highlights the spectre of corruption that haunts any transaction involving large sums, with the Gautrain falling prey to this as noted in the case studies. Public officials are, therefore, uneasy about transferring risks to the private partner as this involves a certain loss of control, as mentioned in the previous section on private sector capacity.

However, control and risk transfer are two ends of a spectrum within which the public and private sectors have to find each other in order to form meaningful transactions to deliver services. In traditional infrastructure procurement, risk sits first and foremost with the public sector client. The client sets the brief, arranges the funding, sets the performance specification, as well as every aspect of the transaction arrangements (selects the contract, often with special amendments or stipulations), mode of transacting, timeframes for delivery and payment terms before initiating the project and monitoring the achievement thereof. The private partner simply agrees to the terms and delivers according to this rigid framework.

In an environment where the public sector partner is well structured and capacitated, this arrangement has merit. However, as noted, this is not the case. The public sector is often criticised for setting poor briefs which are then subject to change during the course of the project introducing abortive work, frustration and confusion; interim payments are processed late disrupting the private sector contractor’s cashflow and relationship

with subcontractors or suppliers; contract documents are often poorly described or, if standard industry contracts are used, substantially amended with clauses that create contradiction or introduce ambiguity; the ability of the public sector to actively administer the contract and monitor the achievement of interim milestones is constrained by a lack of suitably qualified or experienced officials.

The above scenario does not bode well for effective implementation of TIP and yet this is regularly cited as the 'least-risk' option for public sector infrastructure delivery. Sentiment in the industry is therefore that attempts to strengthen TIP by introducing a more rigid infrastructure system such as the IDMS without addressing the human capacity issue may do more harm than good.

So what solutions are offered by respondents? The primary driver for effective delivery for any private institution is cashflow. For this reason step one may be reviewing the available funding mechanisms.

6.3.9 Funding Arrangements

In a PPP there is the option of permitting the private partner to make their own financing arrangements. The private sector's ability to borrow money means that they control the flow of cash to their subcontractors during the course of the capital investment and afterwards during the operational phase. This is a fundamental aspect of risk transfer in a public-private transaction and mitigates the major risk currently influencing many infrastructure projects in the local environment – that of late payments. As noted in the chapter on the regulatory framework, the Public Finance Management Act or PFMA creates the framework for effective management of state funds. Respondents, public officials and private specialists alike all note that risk transfer should start with shifting at least a significant portion of the funding provision for a PPP project to the private partner. However, this aspect must consider access to finance versus cost of borrowing.

It is established that the public sector's ability to access funding is set by the annual budget vote and subsequent apportionment by various levels of government down to the level of services, programmes or projects contemplated. Without going into a detailed account of public funding, it suffices to say that the cost of borrowing from state coffers is lower than that of private institutions. This is because private lending

institutions (commercial banks) expect a rate of return in excess of the rate at which they are able to borrow from the reserve bank. This cost is inserted into any transaction involving borrowing from a commercial lender and as such means that private lending is more expensive than direct capital injection by a public institution.

That said, it is well agreed amongst the public and private sector PPP specialists interviewed that when the private partner is responsible for providing funding, their ability to access funds and manage their own cashflow, which is fundamental to any commercial operation, is greatly enhanced. This aspect of risk transfer mitigates arguably the single greatest risk from which private sector companies in this country suffer when doing business with the various spheres of government: the well-documented scourge of late payments. One commentator notes that the figure of late payments owed to private construction firms features in the billions **Invalid source specified.**.

One respondent notes an aspect of funding fundamental to risk transfer, namely the mix of public and private funding in a PPP. Much of this has to do with the scale and complexity of the project at hand. In small- to medium-scale projects, access to private capital is readily available and financial institutions appear keen to lend. In large megaprojects it is prohibitively expensive to borrow from commercial banks on the scale required. The R30bn Gautrain is a prime example, where 88% of funding was provided by the state.

An aspect raised by some respondents regards the provision of private equity in the project. The Chapman's Peak Drive case study saw the private sector construction companies involved take a stake in the capital project. As shareholders, private sector construction companies were incentivised to ensure timeous and effective delivery.

In summary, risk transfer in terms of funding requires a consideration of the following:

1. State capital injection to make projects bankable (affordable);
2. Remainder provided by private finance to ensure sufficient availability to cash and provide smooth cashflow to the private sector partner;
3. Cost of borrowing from commercial banks properly factored in to ensure the affordability ceiling for the private sector partner is not adversely affected; and

4. The inclusion of a degree of private equity in the project to incentivise the private partner to manage costs effectively and focus on delivery.

6.3.10 Effectiveness During the Operational Period

It is the opinion of at least one respondent that the effectiveness of the private sector partner in consistently managing the contract during the operational period is critical to the ongoing success of the project. This opinion is rooted in the evidence that as long as the private sector is incentivised to extract value from an ongoing transaction to meet the specification requirements, they will try and do this at least cost, and attempt to optimise the operational and maintenance regime.

Note that it is the responsibility of the public sector to ensure that these performance criteria are well set and actively monitored with financial penalties for non-achievement. The Gautrain case study provides the best example for this where the Gautrain Management Agency (GMA) constantly measures numerous data points to ensure optimum service by Bombela, the concessionaire.

6.3.11 Regulatory Framework

Despite the fact that there is a well-developed policy framework for PPPs in South Africa there is significant discussion amongst PPP specialists about whether this is an enabler or a constraint. Opinions among respondents favours the latter, noting that the policy framework is particularly onerous and requires a significant upfront investment in time and effort. The emergent property of this perception is that only large megaprojects are considered for PPPs where the economy of scale is justifiable given the investment in developing the feasibility study and going through the various stages of treasury approval. Participants note that this can sometimes take up to 18 months and cost anywhere in the order of hundreds of thousands of rands in consultant fees.

Taking into consideration the concerns regarding the above, some respondents drew reference to the emergence of public-private arrangements (PPAs) as part of the Renewable Energy Independent Power Produce Programme or REIPPP. These ‘hybrid PPPs’ are not PPPs in the classic sense, as they have major differences relating to the

fact that no infrastructure is transferred to the public sector and the private partner is wholly responsible for the capital cost (private equity and commercial debt) (Nel, 2018:40). The private partner simply sells energy directly to the energy distributor, Eskom (Nel, 2018:40). Because of this these arrangements are made outside the traditional policy framework for PPPs. However, that is not to say that this is conducted without input from the relevant authorities. Officials from the PPP unit within the National Treasury developed procurement procedures to produce an "approach [that] combines elements of the classic PPP and a supplier agreement" (Nel, 2018:40).

Table 15: Building blocks of public-private partnership vs. independent power producers

Building blocks of PPPs		Prevalence in IPPs
1	Value for money	No transfer of facility takes place, the only asset transferred is Renewable Energy (RE)
2	Affordability	Yes, RE prices are set by government
3	Risk transfer	Yes, private sector carries all the risk; however, the Department of Energy carries the risk if Eskom defaults on payment
4	Private sector commercial gain and capacity	Yes
5	Preparation and planning for improved feasibility	Yes
6	Financing of the PPP process available	Private Sector finances the entire process
7	Positive local impact	Yes
8	Citizen engagement	Yes
9	PPP framework available	Yes

Source: Nel (2018)

One respondent notes that a prime consequence of the deviation from the classic PPP paradigm is the creation of a replicable procurement framework for subsequent projects. The IPP example therefore unlocks the procurement possibilities for a programme of similar infrastructure projects, such as the delivery of public schools.

6.3.12 Public Schools as a Delivery Objective

The applicability of public schools as a delivery objective for PPPs is reinforced by the quantitative data, whereby survey respondents identified that semi-complex infrastructure is most applicable to the PPP mode. Aided by a repetitive procurement framework for delivery, as discussed above, most respondents agree that, due to their reasonably uncomplicated and modular nature, public schools are a strong candidate for delivery via a PPP. Respondents reinforced this by noting that there is sufficient competition in the industry to deliver this infrastructure type as it does not require specialised technical know-how and the risk is therefore low enough to mitigate most of the potential delivery complications.

However, one respondent cautioned that a benefit of making use of a PPP, namely innovation, may be overlooked if using a standardised and repetitive infrastructure

typology. Delivering public schools in the current context via a PPP where all emphasis is on providing classrooms to meet the demand may overlook the opportunity to rethinking the paradigm of this particular infrastructure typology. The reason this is a concern is contextual. The pressure to provide public schools in the current context is rooted in provision, not innovation or a paradigm shift. In the denser parts of the province sites are being swallowed up by informal settlements as people flock into the metro. In the current paradigm a typical school requires a large site of approximately 2.5 hectares with the buildings constructed as a series of single-storey wings separated by courtyards for play areas and a 100 by 60 metre sports field. This aspect is not conducive to servicing the needs of a rapidly urbanising population and needs to be urgently reconsidered in the face of the diminishing availability of suitable sites for new schools. Innovation could also take another turn as schools are currently run as single-serving facilities. Public schools in the province are generally constructed to only further the ends of education and do not permit usage outside this purpose. The potential for schools as catalysts for urban social integration, adult learning, community facilities, and so forth. is completely overlooked. Reconsideration could not only solve the issue of optimising diminishing sites in the metro but also address issues of vandalism as schools spend most of their time vacant and largely unattended from the early afternoon, over weekends and during school holidays.

Alternate revenue streams could also be considered should a mixed-use infrastructure typology be considered. This would open up the possibility for schools as PPPs in order to leverage the ability of the infrastructure to generate income for a potential private partner beyond simply attracting school fees. At present there are over 200 no-fee schools in the Western Cape who rely solely on government grants, corporate social investment initiatives and meagre fund-raising opportunities (Shelver, 2018). If these schools become able to generate an alternate source of income through alternate uses of their infrastructure they could become viable and reinforce their status in the communities which they serve.

A further concern raised by a respondent who has been tracking demographic shifts and the effects on the demand for community facilities as suburbs or townships mature is that entering into long-term contractual arrangements, as in the PPP mode, could be dire if demands change. The only solution is to allow flexibility in the contract in order to be able to respond to these shifts.

6.3.13 Unintended Consequences of PPP Arrangements

When asked an open-ended question regarding the unintended consequences of PPPs respondents had a wide range of comments and concerns. Key themes regard contracting and control, which is a particular concern in the current context where the Department of Transport and Public Works plays the role of implementing agent on behalf of client departments, such as the Western Cape Education Department. A summary of the responses is listed below:

1. Having contracted with the private sector in a PPP the public partner may think that they can deliver the same service completely themselves, cancelling potential future projects or finding other ways to implement them.
2. Client departments that use implementing agents to deliver infrastructure may consider contracting directly with private partners, shifting the custodial roles away from the specialist departments mandated to perform this function.
3. Losing control by the public sector due to unbundling contracts leading to increasing costs.
4. Trying to insert too many secondary objectives into PPP transactions, such as developmental objectives (community empowerment through job creation).
5. Transaction advisors who put together the original specification for the project may also want to bid on the project creating a potential conflict of interest, for example during the Chapman's Peak Drive case study.
6. Successfully implemented PPP projects could show up departments delivering infrastructure via TIP, leading these departments to refrain from contracting in this mode to avoid potential reputational damage.
7. Lack of flexibility in the arrangements could lead to long-term projects that are not sustainable.
8. Due to extended procurement timelines value for money could be impacted as it becomes difficult to keep both parties engaged and focussed on achieving the objectives of the partnership.

6.3.14 Suggestions to Improve the Environment for PPPs

When asked a similarly open-ended question about what could be done to create more favourable conditions for PPPs respondents highlighted a few key themes, namely addressing and streamlining the PPP procurement process, reviewing financing arrangements and ensuring an appropriate level of skill by both parties. The key findings are listed as follows:

1. A good business plan and model for the transaction and delivery objective.
2. Streamlined procurement to avoid often prohibitively complex and time-consuming approval processes.
3. Capacity-building amongst public sector implementation agencies to ensure officials are appropriately skilled to implement PPPs.
4. Clear output specifications upfront with realistic expectations on the level of service, i.e. public partner client to set the expectations appropriate to the available budget or affordability ceiling.
5. Continuity of key role-players from inception through approval and financial close into the operational period.
6. Financing arrangements to be carefully balanced appropriate to the project at hand in terms of a mix of public and private finance.
7. Revenue stream for the private partner to be carefully thought through in terms of user-pays (school fees, government subsidy).
8. For repetitive infrastructure such as public schools it would be advantageous to create a long-term procurement pipeline, taking a programmatic approach to the delivery of similar projects such as that used for the IPP model.

6.4 CHAPTER SUMMARY

The measurable aspects of the factors listed indicate that public sector capacity is a major concern that needs to be addressed in order to permit an environment conducive to effective delivery through PPPs. The major issues with public sector capacity involve a lack of suitably qualified and experienced officials to implement the complex projects contemplated, as well as the attitude to administration and compliance-thinking where public sector PPP specialists generally buck the trend of the stereotypical risk-averse

public sector bureaucrat. Reinforcing this finding is the view that officials that participate in a PPP are not exposed to subsequent similar projects, either through poor experience or lack of subsequent opportunities. This presents a barrier to gaining much-needed further experience within the public sector. While the foundational aspects of PPPs, namely affordability, value for money and risk transfer rate highly as expected, so too does private sector capacity, having been significantly eroded by the brain drain and lack of infrastructure megaprojects to sustain the private sector in recent years.

On the financing side respondents note that PPPs would be best financed if the private partner arranges the majority of the finance through borrowing or equity. This is considered preferable due to the private partner's ability to manage their cashflow more effectively, concern being drawn to the public sector's inefficiency in paying suppliers timeously. In terms of the type of infrastructure contemplated for PPPs, respondents indicate a preference for semi-complex infrastructure (such as public schools). Respondents also note that the level of service should not be pitched at such a level that value for money is adversely affected, the preference here being for a level of quality that achieves slightly higher than the basic minimum set by the public sector in order to ensure a trade-off between quality and cost.

Respondents note that the regulatory framework is more than adequate for its purpose. In fact, it may be considered restrictive and unwieldy, leaving procurement processes lengthy and uncertain. A general preference indicates that PPP procurement should be reviewed to allow for more streamlined and agile processes that work to engage programmes of similar projects in lieu of complex standalone projects.

Key findings in terms of unintended consequences of PPPs include public sector departments which may consider that they are able to deliver similar projects themselves without the same assistance of a private partner in a partnership arrangement. There is also a concern around the potential loss of control of the arrangement as well as the danger of inserting too many secondary objectives into the arrangement which may adversely affect the delivery of the primary objective. Lastly, the dangers of PPPs are identified in terms of a lack of flexibility to respond to changing circumstances during a long-term off-take period and the extended timelines for approval which could, again, erode value for money as the parties lose patience in seeing the project to financial close.

7: DISCUSSION AND RECOMMENDATIONS – WHAT ARE THE OPPORTUNITIES FOR A PPP FOR PUBLIC SCHOOLS?

6.1 THE WAY FORWARD AND FURTHER RESEARCH

Having established the factors to be addressed to create conditions for a public school PPP in the Western Cape, the question is now how this could be turned into action. Firstly, the critical factors identified in this research project need to be addressed, most notably public sector capacity and creating a platform for streamlined procurement. Next, an investigation is needed into the resources available to take on a project of this nature through a review of who is currently providing schools from the private sector and whether they would even consider entering into a long-term contractual relationship with the public sector to expand their offering.

6.2 ADDRESSING THE LIMITING FACTORS: CAPACITY AND POLITICAL WILL

In a dissertation on corporate governance in PPPs, Brink (2006:135-146) identifies the following characteristics that public sector managers should seek to improve or promote in order to create an environment for successful PPPs: improved risk management, innovation and entrepreneurial thinking in the development public sector culture, involvement of civil society in the broader PPP scenario, public sector manager accountability, and a quest for stronger leadership. The above points to the need for a culture shift in the way public managers approach their work and how they plan, lead and organise the delivery of services to the South African public. In an environment plagued by corruption and poor governance, the local public service is under pressure to transform itself into a state where ethical and transparent civil servants are driven to seek out new ways of scaling up delivery in a country beset with massive socio-economic inequalities.

Brink (2006) also refers to the required shift being more than just the superficial (and hackneyed) invitation to ‘think out of the box’, but rather a holistic cultural paradigm

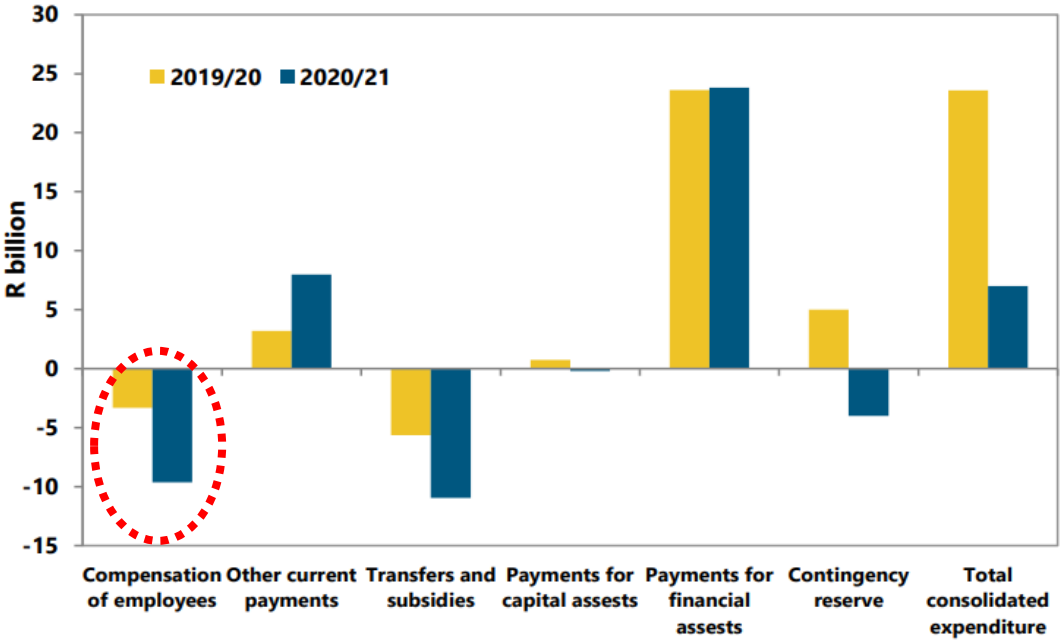
shift whereby public sector actors are not just permitted, but actively encouraged to take calculated risks in seeking out solutions to contemporary and future problems. One aspect that was touched on in Chapter 2 regarding critical success factors is leadership. Senior managers in executive positions are critical to promote innovation, initiative and creative solutions to the challenges of service delivery. At the other end of the spectrum is the ever-present bane of compliance, often seen as a necessary evil or a barrier to creating conditions for effective implementation. The Red Tape Reduction unit in the Western Cape government identifies the following perceptions from interactions with the private sector: "bureaucratic officials, a lack of coordination between agencies and departments, a lack of clarity about government's objectives, processes and timeframes, not enough transparent decision-making, the inconsistent interpretation of rules, no connection between the regulator and business [and] a lack of accountability regarding decision-making." (DEDAT, 2015). Unfortunately, results of the unit's efforts so far appear to be limited to the sphere of encouraging the development of small, medium and micro-enterprises (SMMEs), which is on the complete opposite side of the spectrum to where PPPs are intended to operate. This is no surprise as the risks around the implementation of megaprojects are very different to those of SMMEs, as the lure of large gains have left a trail of suspicious public and private actors in the wake of the recent Zondo commission (SA State Capture, n.d.).

> *"And so, the narrative is gradually changing in South Africa. With new leaders in government and many state-owned enterprises, there are signs that the right 'tone at the top' is being set, indicating that the very long journey towards building an ethical society has a greater chance of gaining momentum …"*
>
> (TEI, 2018:12)

Taking the above into consideration it is worth noting the character of many of the public sector PPP specialists, which, while being interviewed, displayed both an appreciation of the scale of the task at hand as well as a compulsion to engage with the challenges. This may partly be due to the reasonable seniority of the individuals interviewed, the implicit responsibility and visibility of their office to political actors

who hold them individually accountable and, perhaps, a reasonably stable work environment (job security) and lucrative remuneration and benefits package. However, what also needs to be taken into consideration is that there is an inward locus at play. Due to their level of skill and experience, these officials have the option of plying their trade in numerous spheres outside the public sector; however, they choose to work within its bounds. The reason often cited is one of impact. From the outside, specialists and contractors have to wait until the public sector initiates a PPP. Internally, however, public sector officials are in a unique position to lobby their political masters and advocate for the PPP mode. This requires a need to ensure that their political seniors are open to the idea, as well as an assurance that this mode is deemed appropriate based on proven ability and knowledge.

With the public sector is currently desperately trying to optimise traditional infrastructure procurement, it is essential that there is a viable alternative to alleviate the pressure in selected and appropriate areas. Further, it appears that the days of TIP as a primary mode for public infrastructure delivery are running out as the local public sector is put under increasing pressure to deliver the infrastructure needs of a developmental state with fewer resources year-on-year. The Industrial Development Corporation's review of the 2019 National Budget (refer to the figures below) indicates that the public sector needs to continue the upward trend in providing education infrastructure in the face of a declining public sector wage bill: in essence, civil servants involved in infrastructure delivery will need to do more with less.



Source: IDC, compiled using National Treasury data

Figure 29: Changes in government expenditure for 2019/20 - 2020/21
Dotted ellipse by researcher

(IDC, 2019:5)

Table 16: Public-sector infrastructure expenditure and estimates, dotted rectangle by researcher

Investment area	2018/19 estimate	MTEF forecasts (R billion)			MTEF period		
	R billion	2019/20	2020/21	2021/22	Average annual growth	Total R billion	% of total
Transport and logistics	78.0	94.8	103.8	115.3	14.1	313.9	36.3
Energy	50.6	52.6	52.8	52.8	1.4	158.1	18.3
Water and sanitation	38.3	42.8	41.8	47.4	7.7	132.0	15.3
Education	18.5	18.2	19.0	19.8	2.2	56.9	6.6
Human settlements	18.2	18.8	19.0	19.7	2.8	57.5	6.6
Other economic services	16.7	15.1	14.2	15.2	-3.0	44.5	5.1
Administration services	12.3	11.7	12.2	13.1	2.3	37.0	4.3
Health	12.1	11.8	11.1	11.5	-1.6	34.3	4.0
Other social services	10.6	10.3	9.9	10.4	-0.3	30.6	3.5
Total	255.1	276.1	283.8	305.1	6.2	864.9	100.0
% change on previous year		8.2	2.8	7.5			

Source: IDC, compiled using National Treasury data and IDC calculations

Source: IDC (2019:14)

While the officials interviewed appreciate that compliance is a vital element of any public action, they are also well aware that this requirement tends to detract from effectiveness and efficiency. In SA, where policy-makers are particularly adept at

producing regulations which are, arguably, often beyond the ability or capacity of the public institutions meant to implement them, it is an essential skill to be able to utilise current policy frameworks to optimise rather than constrain achievement of objectives.

What does this mean for the public sector? In order to unlock public sector capacity and not just for PPPs, officials need to be trained to look to the enabling aspect of policies in order to unlock the needs of their immediate environment and ensure that an appropriate level of compliance is undertaken balanced against the need to scale up delivery. In terms of quantum, public sector implementing agencies will also benefit from a strategic shift in terms of organisational design and behaviour to create the resources necessary to implement alternative procurement options. This is nowhere more apparent than within the DTPW where the PPP unit, which exists as a satellite unit adjacent to Education Infrastructure (EI) is permitted to employ 16 officials, in terms of the approved establishment, alongside EI's 113.

6.3 VOLATILITY FOR PPPS IN THE PRESENT ENVIRONMENT

A further concern that warrants discussion is the current volatility in the PPP arena which has a direct influence on public and political perception, both of which significantly influence initial adoption and ongoing use of this procurement mode. An example of this is the recent and as-yet unsubstantiated removal of the head of the Independent Power Producers (IPP) programme (Engineering News, 2019; Politicsweb, 2019). The official in question spearheaded significant investment in the renewable energy sector with a little over R200 billion being committed by private partners to the various renewable energy projects. The removal of the official from her post, however, casts aspersion on the underlying intentions of the current administration. This volatility is also manifested in structural changes to the PPP consulting sector, with one participant citing significant downsizing of their unit within a large consulting firm to suit operational needs due to a lack of PPP projects, while another participant immigrated for the same reason.

An insight into the geographic spread of respondents / participants warrants discussion. Although the set was initially limited to the Western Cape it became apparent that is was necessary to extend this to the rest of the country as many PPP specialists shift to

wherever their expertise is needed. Many PPP specialists reside in Gauteng as they were at some point involved with the National Treasury's PPP unit based in Pretoria before taking up positions elsewhere as their careers developed, or as needs of the projects they may have been working on arose. What is striking is that the geographic spread of specialists was not influenced by their particular sector. PPP specialists employed by the public sector appear to have experienced a similar degree of geographic relocation to their private sector counterparts.

6.4 OPPORTUNITIES FOR A PUBLIC-PRIVATE PARTNERSHIP FOR PUBLIC SCHOOLS

In terms of the applicability of public schools for PPPs, a common cry is becoming apparent – that the current public-school paradigm be overhauled. This roots of this are two-fold: there is a lack of alternate revenue streams available to schools in order to fully subsidise their operations, and a lack of available sites in the metro where the need is greatest. For PPPs, the former is self-evident as creating an environment for alternative revenue streams could allow private sector operators to unlock other value aspects not currently considered. The latter concern is rooted in addressing the current paradigm where sprawling single-storey schools are placed on marginalised fringe sites where they are at risk of illegal occupation by the very communities which they intend to serve. The solution could be unlocked through one of the benefits of PPPs: innovation. Harnessing the additional resource base offered by the private sector could lead to innovative solutions to this problem.

Many commentators, including participants in this research project, refer to the complex and time-consuming nature of the PPP regulations forming a hurdle to effective procurement. It is worth noting, however, that the regulations were drafted to address all forms of delivery via this mode and were therefore substantially comprehensive in addressing the primary aspect of PPP delivery. In the Independent Power Producers procurement mentioned previously, the intention was to implement a programmatic approach to delivery where a replicable formula was used to create a pipeline for the procurement of similar projects. While this is touched on in the section on the regulatory framework alongside how this was adapted to suit the procurement of

the IPPs, it is worth exploring this as a mode to further unlock the delivery of public schools by PPPs or a similar mode. The procurement lessons learnt through the IPPs involved a thorough evaluation of the prevailing PPP regulations and what could be done to unlock the public-private paradigm to improve and streamline procurement. The intention was to create a pipeline via a replicable formula. Shifting to a programme approach, as the IPPs did, involved streamlining certain barriers to procurement, one of which was to systematise risk transfer. In the IPP model, the private partner carries the full risk of the infrastructure, providing all the funding. This allows the public sector to limit their exposure to just the off-take agreement where the product (electricity) is the only deliverable. Further, the infrastructure is never transferred to the public sector. With the risk of redundant infrastructure wholly with the private partner, there is no concern for future repurposing or shifting demands transferred to the public sector. With the IPP model considered a form of 'supplier agreement', how could this be transferred as a model for public schools?

The first part of the solution involves standardising output specifications. For schooling, this includes ensuring that the private sector complies with the norms and standards for school infrastructure and ensuring that education outcomes are comparable with that of the prevailing public sector in terms of curriculum via the grade system.

The second major hurdle requiring addressing opportunities is the demand risk. In an environment characterised by rapid urbanisation and shifts in community needs it is essential to create a flexible platform for any public-school PPP. This will need to allow the public partner the room to respond to demographic shifts during the lengthy time periods contemplated by this procurement mode.

Next is affordability. At present the various private school operators levy significant fees in order to pay educator's salaries and build and maintain the infrastructure, while these two items are fully subsidised by government in public schools. In many public schools the School Governing Body posts (paid for by school fees) and infrastructure are constructed from fundraising or donations.

Under a user-pays model, this means that any schools contemplated for a PPP would need to have some form of income generation either through school fees or other forms of revenue. There are many schools which are fully privately funded; however, these are typically associated with singular high-end education facilities that are completely

self-sustaining. These schools fall outside the scope of those contemplated in this project. At the other end of the spectrum are no-fee schools. Unless provincial government is amenable to entering into a long-term off-take agreement (a kind of rental agreement to an operator), the no-fee schools, where there is little to no revenue stream from the schools itself, would similarly fall outside the scope of public schools contemplated for a PPP. What is left is many fee-paying schools which, although a revenue stream exists, remain firmly entrenched in the public-school paradigm.

6.5 POTENTIAL PRIVATE PARTNERS

The real question to be asked in further research is: are there potential public partners who can demonstrate a willingness and capability to enter into this domain? While there are private education providers such as ADvTECH and Curro it is untested whether these or similar groups would consider partnering with the public sector. The major risk items that would need to be considered are a viable business case through a bankable financial model (i.e. user-pays model and/or government guarantee), the ownership of the school sites, agreement of the specifications of the required standards expected by the public sector (i.e. educator-learner ratios and choice of curriculum) and flexibility in terms of how the offerings may need to be adapted to respond to the changing needs of the communities they may serve during any long-term period.

The key to the ADvTECH and Curro operations is their scale. While these groups initially began with high-end tailored offerings to meet the specific needs of the education spectrum which were not being met by the public education system, in recent years they have each commenced with campaigns to narrow the socio-economic gap through more cost-effective versions of the fee-paying public-school model. As they grow in scale, so too does their economy and fees are indeed falling, making them a viable alternative to upper-middle class South Africans looking for schools with a focus on quality education through lower educator-learner ratios.

ADvTECH claims to have over 45 000 students in their 103 schools across South Africa, Botswana and Kenya (ADvTECH, 2019). School fees for the Pinnacle College range of schools, which represents their mid-fee offering, are in the range from R3 000 to R7 000 per month (BusinessTech, 2019). Originating in 1998, by January 2019 Curro

reported having 57 276 learners at 68 campuses (Curro, 2019:3) at an average school fee of R3 500 per month (Business Insider, 2019). There are already 16 Curro schools in the Western Cape with 12 located in the Cape Town metro.

Figure 30: The spread of Curro schools in the Cape Town metro

(Curro, n.d.)

Both groups are focussed on growth, and stories of the number of new schools on offer are constantly in the media. With the lack of sites available and government being a major landowner, at some point the opportunity may arise where the needs of the public and private sectors may be aligned in the interests of increasing the roll out of public education to a rapidly increasing population in the province.

6.6 CHAPTER SUMMARY

This chapter took the quantitative and qualitive research findings and placed them into the broader context of public infrastructure delivery using the example of the energy

partnership with the private sector using as a case study of the Independent Power Producers (IPP) programme and the implementation of a unique procurement facility, a “hybrid” version of the traditional PPP mode. For modular or repetitive procurement this mode takes a programmatic approach, a sort of procurement production line which, arguably, lends itself to implementation of modular, repetitive infrastructure, such as public schools.

Taking into context South Africa as a developing nation constrained by specialist resources and high economic volatility it is a relief to know that there remain opportunities and willingness for private sector involvement in public services, closer to the topic of this research project: public schools. The introduction of cost-effective models from the private sector bridges the gap between public and private education offerings. It is therefore logical to consider a situation to where, with minimal input from the public sector, the private sector may enter this arena on a large scale. The real question that becomes evident from the research is whether the public sector is willing and ready to consider this option. Given the evidence that the major constraints are a lack of public sector capacity, insufficient political will and a restrictive policy framework it is unlikely that the public sector will entertain this anytime soon. However, should these three factors be addressed as outlined in this research project, the potential for harnessing the private sector to unlock the provision of public education infrastructure may be considered.

8: SUMMARY AND CONCLUSION

8.1 RESEARCH PROBLEM SUMMARY AND CONCEPTUAL FRAMEWORK

This research project was initiated in order to investigate options available to the public sector to mitigate the shortage of public schools in the Western Cape brought on by significant population growth and rapid urbanisation in the region. The report began with an investigation into the context, quantifying the impacts these two factors are having on service delivery, focussing specifically on the provision of public schools in the province. The above was covered in Chapter 1 where the basis for the research problem was established in terms of pressures on the delivery of public schools, as well as the context in terms of the state of current public sector infrastructure delivery. Finally, the public-private partnership paradigm was introduced as the only remaining avenue left untested for the delivery of public-school infrastructure in South Africa, let alone the province.

In Chapter 2 the conceptual framework underpinning the research problem was investigated in its various dimensions through a review of available literature. Public sector infrastructure delivery in the local context was reviewed with specific reference to the relative merits and, more specifically, the constraints of Traditional Infrastructure Delivery (TIP), the current bastion of public sector delivery favoured by public infrastructure delivery agencies in SA. Specific credence was given to the factors critical to the success of this paradigm through a review of the available literature, mostly international.

Critical success factors such as affordability, value for money (VFM) and risk transfer were specifically reviewed as these form the very reason the public sector contemplates entering into this form of procurement mode. In addition, factors pertinent to the local context were also reviewed, including leadership and political will, goal alignment and governance. It was noted, however, that despite some parallels the local context does not reflect the international context of the texts reviewed. For this reason conditions in the local environment were given a specific focus where more peripheral factors were reviewed such as leadership and political will, goal alignment and governance. These factors have a critical focus in a developing nation due to the shortfall of specialists in

the public sector to advocate for and implement projects effectively via this mode as well as the spectre of corruption and state capture which haunts the megaprojects often contemplated with this mode of procurement.

Chapter 3 addressed the legislative and regulatory framework in terms of two aspects: the delivery and management of public infrastructure and procurement opportunities in terms of the Public Finance Management Act and the various frameworks for PPP budgeting and procurement. It was established that the regulatory framework for infrastructure delivery and PPP procurement is well developed. This last fact becomes constrictive when considering that one of the factors critical to the success of PPPs is a degree of flexibility. To this end, the procurement framework for PPPs in SA is considered by critics to be too well developed to the point where it constrains more than it enables. With timelines in the order of 18 months on average from inception to financial close (concluding the procurement process) it is difficult to keep partners engaged on achieving value – one of the most critical factors in ensuring that PPPs are effective. These timeframes also open up the potential for loss of critical personnel, critical to ensuring continuity in terms of engagement with the process.

8.2 SUMMARY OF RESEARCH DESIGN AND METHODOLOGY

Chapter 4 covered the research design and methodology. The research problem, namely ‘Are PPPs a feasible delivery option for public schools in the Western Cape?’ was proposed with three secondary questions intended to aid the research process in achieving a solution:

1. What factors are critical to the success of an infrastructure PPPs in the local and current context?
2. Are these factors sufficiently present in the current context to provide a suitable environment for the effective delivery of public schools in the Western Cape?
3. What can be done to improve the appetite or address any constraints this mode may suffer from should a PPP be considered to deliver public schools in the Western Cape?

The above three questions set the framework for a triangulated research approach; the process being split into three sections to answer each of the three questions above. The research design therefore involved three distinct processes to collect and analyse data. The first question was addressed by identifying factors critical to the success of a local PPP via a review of a series of local case studies (secondary data analysis). The second question measured these factors via a quantitative survey issued to local role-players in the PPP space. The third question was addressed through a series of depth interviews with local PPP specialists to uncover root causes and propose solutions to addressing adverse findings in the quantitative phase should a PPP for public schools be considered.

Chapter 4 also provided a discussion on the validity of the findings, which is important given the relatively small data set, but is justified by the narrow field of engagement on the topic. Ethical considerations were covered and, finally, the scope and exclusions of the research were discussed: this project being limited to infrastructure solutions only, and not being a more comprehensive approach to both the delivery and operations of public schools despite the possibility of this in the present environment.

8.3 SUMMARY OF FINDINGS

8.3.1 Case Study Findings

The case studies were reviewed in Chapter 5 and uncovered the following factors critical to the success of PPPs in the local context:

1. Affordability
2. Value for money
3. Risk transfer
4. Regulatory framework
5. Clear performance specifications and monitoring
6. Political will and leadership/advocacy
7. Innovation
8. PPP specialist input and oversight
9. Goal alignment
10. Technical team continuity

11. Flexibility

In addition, a distinction was drawn between factors that form the foundation for PPPs, namely the first four listed above, with the remainder forming factors that enhance or otherwise optimise the arrangement. The factors were then rationalised to represent a set of measurable factors that could be used to represent ten factors considered critical to the success of a public schools PPP in the Western Cape:

1. Affordability
2. Value for money
3. Risk transfer
4. Regulatory framework
5. Political will and advocacy
6. Transparency
7. Public sector capability/capacity (skills and resources)
8. Private sector capability/capacity (skills and resources)
9. Market competition (in the local construction industry)
10. Economic stability

8.3.2 Survey and Interview Findings

Chapter 6 constituted the empirical data analysis stage conducted in two phases: a quantitative phase to measure the above factors collected via an online survey, and a qualitative phase to identify underlying causes and solutions conducted via a series of depth interviews. The first phase measured the factors in terms of two dimensions: (1) their perceived importance; and (2) their perceived presence or potential for achievement in the present environment. While the founding PPP elements of risk transfer, affordability and value for money were seen as highly important, so too was the capacity of the public and private sector alike to deliver, as well as allied factors such as transparency and political will. In terms of presence in the current environment, risk transfer, private sector capacity and regulatory framework formed were found to be highly present, while value for money and affordability rounded out the top five.

However, public sector capacity dropped to last while its allied factor, political will, came in only two places above, with economic stability separating the two.

The next step in the quantitative analysis involved overlaying the two data sets to gauge differences between the perceived importance of the ten factors against their apparent presence in the current environment. The results provided a very different picture of the situation. Firstly, it was notable that nine out of the ten factors were found to be slightly deficient in terms of their presence against their relative measurements of importance. This could be an indication of a general sense of pessimism of the possibility for PPPs to achieve fruition at present. At the top of the list was public sector capacity/capability, which had a high degree of importance, but was lowest in terms of presence. Second was political will, which is interesting as it is arguably allied with public sector capacity: capable implementing departments linked to a perception of confidence by political heads. Economic stability and affordability were also notably deficient in terms of their presence versus their high importance. The remaining factors, while notably closer in terms of their presence versus importance, were still slightly in arrears. Regulatory framework was the only factor that reversed this trend. The implication of this is that the current regulatory framework for PPPs may perhaps be too present in the current environment, indicating a possible constraint or limiting factor.

Other aspects included in the quantitative survey of the PPP mode considered relevant to the delivery of public schools include whether the infrastructure typology was considered favourable for PPPs, financing arrangements in terms of the split between government and private capital injection and the level of quality considered preferable for effective delivery by PPP. The results indicate that, as a modular and reasonably uncomplicated infrastructure type, public schools lend themselves to delivery by PPPs. Financial arrangements favour majority private finance (debt and equity) in terms of the major contributors to the arrangement, which has a positive effect on the willingness of the private partner to accept risk. Finally, PPPs should be seen to provide a quality of service that is above minimum standards, i.e. exceeding the quality of standard public sector infrastructure, or local best practice. It is notable that survey respondents, public and private sector alike, stated a categoric “no” to the option of using PPPs to deliver top level or ‘world class’ infrastructure. This finding is consistent with the concern that affordability and value for money may be adversely affected in this instance.

The second phase, the qualitative analysis, elicited a series of findings that underpinned the results of the quantitative analysis. Firstly, the lack of public sector capacity is linked to two dimensions: a scarcity in the number of public sector specialists employed in PPP implementation units and the lack of officials skilled in the PPP mode to promote and administer this procurement mode. Lack of political will was found to be linked to a general sense of risk aversion on the part of political heads who have little to gain but much to lose by using the PPP mode. The low conversion rate of PPPs from inception to financial close over the last 20 years is also cited as having contributed to this sentiment. While on the theme of capability, private sector capacity, while still considered present, has been significantly eroded by the ongoing brain drain as specialists flee the country for less turbulent political and economic environments in the developed world where their skills are highly prized. The result is that while we currently have capacity to implement PPPs by private sector specialists, the lack of competition means the cost of procuring transaction advisors is considerable. When taking into account the amount of time and effort in entering into the PPP paradigm and going through the tedious procurement stages, the costs become prohibitive if the scale of the project does not justify the risk.

Moving into the founding factors for PPPs, affordability is a major barrier to large public infrastructure projects. The impact of committing funding to a single, large, long-term project means taking away from the delivery of other projects for the foreseeable future, leaving public sector agencies at odds with public sentiment when needs change. The other dimension of the affordability debate revolves around innovative uses of private finance, with PPP specialists noting a lack of consideration of alternate revenue streams to fund projects. Lastly, the level of service appears to be of critical concern when considering PPPs and public sector agencies expect a level well in excess of what is deemed adequate, negatively affecting any affordability calculation.

Among PPP specialists, value for money (VFM) was noted to be of particular concern when it comes to the off-take or operational period. This finding is reinforced by the fact that most texts refer to the need to ensure VFM is tested during procurement only and do not mention anything further on the factor during the implementation phase of any PPP project. Participants note the need for ongoing monitoring and evaluation during the whole life of the project to ensure that the private partner consistently maintains the level of performance set by the terms of the agreement.

Risk transfer was found to be related to the need to transfer risk out of the public sector implementing agent, the issue being that this comes with a concern around the cost of doing so, affecting value for money, and the concern that this may only be achieved by handing over control to the private partner. It is ironic then that this latter point is often cited as the very reason why many public sector infrastructure delivery components hang on to traditional infrastructure procurement, where all the risks are retained. In the end this appears to be related to a lack of understanding by public sector officials around the principles of risk transfer with the result that the preferred methodology is to retain all risks associated with delivery.

Critical to risk transfer is how the financing arrangements are structured. Consistent with the findings in the literature review, it was noted that while access to private borrowing may be preferable in terms of ensuring consistent cashflow to the private partner as private financiers are more efficient at releasing interim payments, this has to be balanced against the cost of private borrowing as private financial institutions expect a return on their investment. It was noted that an injection of government funding often has a vital impact on the bankability of the project at hand. The following suggestions were made:

1. State capital injection to make projects bankable (affordable);
2. Remainder provided by private finance to ensure sufficient availability to cash and provide smooth cashflow to the private sector partner;
3. Cost of borrowing from commercial banks must be properly factored in to ensure that the affordability ceiling for the private sector partner is not adversely affected; and
4. The inclusion of a degree of private equity in the project to incentivise the private partner to manage costs effectively and focus on delivery.

Transparency is currently part of a much broader concern due to the lack of information available in state procurement processes, in spite of which large procurement processes appear to proceed regardless. The current economic volatility is also a contributing factor to a sense that PPPs are considered too high risk at present. With many local contractors struggling to stay afloat in turbulent economic times the present may not be conducive to entering into a long-term contractual relationship.

The regulatory framework for PPP procurement is considered a barrier to effective procurement due to the complex approval processes. The solutions proposed include taking a streamlined procurement approach and implementing projects via a programmatic process. This approach is taken whereby the procurement process is slimmed down to allow to for repeat procurement of similar projects, such as public schools. To this end, respondents note that public schools are considered a good fit for the PPP mode due to their simplicity and repetitive or modular nature. For this reason implementing a programmatic procurement approach for the delivery of public schools is considered a good fit. This approach has already borne fruit in SA through the Independent Power Producers (IPP) programme where a hybrid PPP approach has been taken to procure a series of similar energy projects.

It is noted that PPPs can elicit the following unintended consequences:

1. Having contracted with the private sector in a PPP the public partner may think that they can deliver the same service completely themselves, cancelling potential future projects or finding other ways to implement them;
2. Client departments who use implementing agents to deliver infrastructure may consider contracting directly with private partners, shifting the custodial roles away from the specialist departments mandated to perform this function;
3. Losing control by the public sector due to unbundling contracts leading to increasing costs;
4. Trying to insert too many secondary objectives into PPP transactions such as developmental objectives (community empowerment through job creation);
5. Transaction advisors who put together the original specification for the project may also want to bid on the project creating a potential conflict of interest – e.g. in the Chapman's Peak Drive case study;
6. Successfully implemented PPP projects could show up departments delivering infrastructure via TIP, leading these departments to refrain from contracting in this mode to avoid potential reputational damage;
7. Lack of flexibility in the arrangements could lead to long-term projects that are not sustainable; and
8. Due to extended procurement timelines value for money could be impacted as it becomes difficult to keep both parties engaged and focussed on achieving the objectives of the partnership.

Suggestions to improve the environment for PPPs include the following:

1. A good business plan and model for the transaction and delivery objective;
2. Streamlined procurement to avoid the often prohibitively complex and time-consuming approval processes;
3. Capacity-building amongst public sector implementation agencies to ensure officials are appropriately skilled to implement PPPs;
4. Clear output specifications upfront with realistic expectations on the level of service, i.e. public partner client to set the expectations appropriate to the available budget or affordability ceiling;
5. Continuity of key role-players from inception through approval and financial close into the operational period;
6. Financing arrangements to be carefully balanced, appropriate to the project at hand in terms of mix of public and private finance;
7. Revenue stream for private partner to be carefully thought through in terms of user-pays (school fees, government subsidy); and
8. For repetitive infrastructure such as public schools it would be advantageous to create a long-term procurement pipeline taking a programmatic approach to the delivery of similar projects such as that used for the IPP model.

8.4 CONCLUSION

From the findings it is evident that, while public schools may lend themselves to procurement and delivery via public-private partnership if a repeatable, programmatic procurement process is involved and/or a hybrid PPP approach is undertaken similar to that of the local Independent Power Producers programme, barriers do exist. These are a distinct lack of public sector PPP competency and political will brought on by a lack of skilled PPP proponents and specialists in the Western Cape and the considerable volatility in the local economic environment which casts aspersion, placing entering into long-term agreements at risk.

That said, if a business case is made that unlocks the affordability of the provision of public schools through leveraging the fee-generation capacity of many public schools,

a factor that is already being exploited by at least two private sector education providers in their more affordable education offerings, then a PPP may be a suitable vehicle to provide much-needed public education facilities in the Western Cape while simultaneously lessening the burden on the public purse. In this instance two factors need to be addressed. Firstly, the public sector needs to attract and recruit PPP specialists to join the service or undertake a concerted training effort to upskill existing incumbents involved in infrastructure delivery to become proficient in this mode. This will ensure that projects and programmes are delivered competently and that value is achieved at all points in the delivery chain. Secondly, the current PPP procurement framework must be reviewed by the relevant treasury departments (both national and provincial) in the interests of streamlining the delivery of schools, something that is arguably entirely achievable given that public schools in our environment are generally similar in scale and complexity due to their modular and uncomplicated typology.

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ANNEXURES

ANNEXURE A: SUMMARY OF QUANTITATIVE SURVEY RESULTS

Note: The results of the quantitative survey are a combination of an online survey circulated via the online Survey Monkey platform, www.surveymonkey.com, (n = 10) and individual responses from interview respondents (n = 6) who were asked the same questions.

Section 1: Background and Experience

Question 1

Please select your role.

Response table (n = 16)

RESPONDENT CATEGORY	RESPONSES	%
Public Sector Client or Client Department Representative	0	0%
Public Sector Implementing Agent	4	25%
Public Sector Finance and/or Budgeting	2	12.5%
Public Sector Monitoring and Evaluation	0	0%
Private Sector Transaction Advisor	2	12.5%
Private Sector Built Environment Professional Consultant	0	0%
Private Sector Contractor	5	31.25%
Private Sector Financier or Insurer	1	6.25%
Private Sector PPP Managing Agent	1	6.25%
Other (please specify) ***(Note: one respondent in this category identified themselves as 'research and academia')***	1	6.25%
Total	**16**	**100%**

Question 2

Please select specific experience to date (in years).

Response table (n = 16)

Field of Experience	0 - 2 years	3 - 5 years	6 – 10 years	11 - 15 years	More than 15 years	Totals
Experience in Infrastructure Procurement/Delivery and/or the Construction Industry	6% 1	0% 0	19% 3	12% 2	63% 10	100% 16
Experience with Public-Private Partnerships	19% 3	0% 0	44% 7	6% 1	31% 5	100% 16

Section 2: Critical Success Factors in Public-Private Partnerships

Question 3

Please rate how important you consider the following factors in the implementation of PPPs.

(Select: 1 = not at all important; 2 = minimally important; 3 = somewhat important; 4 = very important; 5 = critically important)

Response table

Factor	Not at all important	Minimally important	Somewhat important	Very important	Critically important	Total (n)	Average (mean)
Affordability	0% 0	0% 0	6% 1	50% 8	44% 7	16	4.375
Value for Money	0% 0	0% 0	13% 2	44% 7	44% 7	16	4.313
Risk Transfer	0% 0	0% 0	7% 1	47% 7	47% 7	15	4.400
Political Will and Leadership (Advocacy)	0% 0	0% 0	31% 5	25% 4	44% 7	16	4.125
Regulatory Framework	0% 0	13% 2	27% 4	40% 6	20% 3	15	3.667
Economic Stability	0% 0	0% 0	20% 3	67% 10	13% 2	15	3.933
Transparency	0% 0	7% 1	7% 1	40% 6	47% 7	15	4.267
Public Sector Capability / Capacity (skills and resources)	0% 0	6% 1	13% 2	25% 4	56% 9	16	4.313
Private Sector Capability / Capacity (skills and resources)	0% 0	0% 0	7% 1	47% 7	47% 7	15	4.400
Market Competition in the Local Construction Industry	0% 0	0% 0	60% 9	20% 3	20% 3	15	3.600

Question 4

Please rate how achievable/prevalent you consider the following factors in the current political and economic environment.

(Select: 1 = not at all achievable/prevalent; 2 = minimally achievable/prevalent; 3 = somewhat achievable/prevalent; 4 = very achievable/prevalent; 5 = completely achievable/prevalent)

Response table

Factor	Not at all achievable / prevalent	Minimally achievable / prevalent	Somewhat achievable / prevalent	Very achievable / prevalent	Completely achievable / prevalent	Total (n)	Average (mean)
Affordability	9% 1	18% 2	9% 1	36% 4	27% 3	11	3.545
Value for Money	0% 0	18% 2	18% 2	45% 5	18% 2	11	3.636
Risk Transfer	0% 0	9% 1	9% 1	55% 6	27% 3	11	4.000
Political Will and Leadership (advocacy)	8% 1	17% 2	50% 6	17% 2	8% 1	12	3.000
Regulatory Framework	0% 0	18% 2	18% 2	27% 3	36% 4	11	3.818
Economic Stability	27% 3	9% 1	18% 2	36% 4	9% 1	11	2.909
Transparency	0% 0	18% 2	27% 3	45% 5	9% 1	11	3.455
Public Sector Capability / Capacity (skills and resources)	0% 0	50% 6	42% 5	0% 0	8% 1	12	2.667
Private Sector Capability / Capacity (skills and resources)	0% 0	0% 0	27% 3	55% 6	18% 2	11	3.909
Market Competition in the Local Construction Industry	0% 0	9% 1	55% 6	27% 3	9% 1	11	3.364

Section 3: PPP Financing

Question 5

What would you consider public finance in the current environment to be geared towards (you may select more than one option).

Response table

Answer choices	Responses	%
Strategic long-term megaprojects	3	21%
Medium- to large-scale medium-term projects	4	29%
Medium scale short-term projects	3	21%
Small scale short-term projects	4	29%
Total Respondents: 9	**14**	**100%**

Question 6

Which of the following financing options would you consider preferable to fund a PPP? (select one)

Response Table:

Answer choices	Responses	%
Private partner provides most of the capital finance (with small contribution by government) and recoups this during the operational period (either by user charges or government user contribution).	4	45%
Equal share of capital finance provision by private partner and government with private partner able to recoup investment during the operational period (either by user charges or government user contribution).	2	22%
Government provides most of the capital finance (with small contribution by private partner) with private partner able to recoup investment during the operational period (either by user charges or government user contribution).	1	11%
Not possible to provide a definitive answer as it depends on the scale and complexity of the project.	2	22%
Other (please specify)	0	0%
Total	**9**	**100%**

Section 4: PPP suitability

Question 7

What infrastructure type would you consider the most appropriate for a PPP in the current environment? (you may select more than one option)

Response table:

Answer choices	Responses	%
Complex infrastructure with sophisticated technical needs and bespoke (unique) elements (large hospitals, complex engineering projects)	4	33%
Semi-complex infrastructure with fairly modular elements (clinics, schools)	6	50%
Simple infrastructure types with mostly repetitive elements (housing, roads)	2	17%
Total Respondents: 9	**12**	**100%**

Question 8

For a PPP to provide best value what would you consider the level of quality required (select one):

Response table:

Answer choices	Responses	%
State of the art facility (world class)	0	0%
Exceeding the standards set by the public sector (local best practice)	7	78%
Meeting the minimum standards as set by the public sector (standard practice)	2	22%
Total	**9**	**100%**

Question 9

How confident are you that the following actors are currently willing and able to enter into a PPP to successfully deliver public schools in the Western Cape?

(Select: 1 = not at all confident; 2 = minimally confident; 3 = somewhat confident; 4 = very confident; 5 = completely confident)

Response table

Actor	Not at all confident	Minimally confident	Somewhat confident	Very confident	Completely confident	Total (n)	Average (mean)
The Western Cape government	0% 0	22% 2	67% 6	11% 1	0% 0	9	2.89
The local construction industry (contractors and consultants)	0% 0	11% 1	11% 1	67% 6	11% 1	9	3.78
Independent PPP specialists (transaction advisors and legal professionals)	0% 0	0% 0	11% 1	67% 6	22% 2	9	4.11
Private financial institutions (commercial banks and insurers)	0% 0	11% 1	33% 3	56% 5	0% 0	9	3.44

Question 10

Would you be willing to actively initiate, promote or otherwise participate in a PPP to deliver public schools in the Western Cape if the opportunity presented itself?

Response table:

Answer Choices	Responses	%
Absolutely yes	5	56%
Absolutely not	0	0%
Not sure (maybe/maybe not)	2	22%
Not applicable due to my present position, role or location	2	22%
Total	**9**	**100%**

ANNEXURE B: INTERVIEW QUESTIONS

Note: the below set of questions were used to structure the depth interviews in order to group responses into the themes identified in the quantitative phase. Some of the same quantitative questions used in the online survey were repeated in this phase and respondents were asked to substantiate their answers during the interviews. In all, ten interviews were conducted for this project.

A. Personal Info

1. Current employer, position and length of service in current position

2. Highest qualification achieved and when

B. PPP Experience

1. When did you first engage in a PPP?

2. What PPPs have you been involved with?

3. What is your particular experience with PPPs?

4. How familiar are you with the various stages in PPPs? I.e. the stages pertaining to Design, Finance, Build, Operate, Transfer, etc?

5. How many staff or officials in your immediate environment have PPP experience?

C. Critical Success Factors

In your view:

1. Please rate the following critical success factors in terms of importance (1 = not at all important to 5 = critically important). Please substantiate your answers in each case.

    1. Value for Money
    2. Affordability
    3. Political Will
    4. Risk Transfer
    5. Transparency
    6. Economic Stability
    7. Regulatory Framework
    8. Public Sector Capacity and Skills
    9. Private Sector Capacity and Skills
    10. Private Sector Competition

2. In your opinion, what is the current level of prevalence of the critical success factors listed above in the current environment (1 = non-existent and needs to be addressed, 5 = fully present and does not need to be addressed). Please substantiate your answers in each case.

    1. Value for Money
    2. Affordability
    3. Political Will
    4. Risk Transfer
    5. Transparency
    6. Economic Stability
    7. Regulatory Framework
    8. Public Sector Capacity and Skills
    9. Private Sector Capacity and Skills
    10. Private Sector Competition

3. What are the constraints in the current environment (Western Cape) for a successful PPP?

4. Which of these CSFs are you (or your office/firm) able to provide strategic direction or otherwise influence?

D. PPP Typology

In your view:

1. What have been the most successful PPP formats for infrastructure delivery in the Western Cape? (DFBOT, Design-Build, etc.)

2. What have been the least successful, if any?

E. Comparisons with Traditional Infrastructure Procurement

In your view:

1. Is traditional infrastructure procurement in the Western Cape more or less effective than a PPP and why?

2. What factors favour TIP over PPPs and vice versa?

F. PPP Finance

In your view:

1. How should PPPs be financed, i.e. direct government funding (capital injection, concession or combination of both?), private finance, private partner equity in projects or combination of any three or others?

2. How long is the optimal period for a PPP (or does it depend on the nature of the PPP) and why?

G. General questions

In your view:

1. Is the current environment conducive to the effective delivery of public services through a PPP and why?

2. Could a PPP for education infrastructure be successful/unsuccessful and why?

3. Going forward, what are the current threats or opportunities for PPPs in the future?

4. How successful are the PPPs you have been involved with in delivering on their planned objectives?

5. What are the unintended consequences of PPPs?

6. What would you consider should be addressed or improved in order to improve the process or appetite for PPPs?

ANNEXURE C: SUMMARY OF QUALITATIVE RESULTS

Note: the below table is a summary of the responses from the depth interviews grouped under the following headings which correlate with the critical success factors identified (ranked alphabetically): affordability, current environment, improvements (suggestions for PPPs), market competition, political will, PPP finance, PPP period (duration of off-take period), private sector capacity, public schools as end product (i.e. suitability to deliver public schools via PPP), public sector capacity, regulatory framework, risk transfer, threats for PPPs, TIP vs. PPP (traditional infrastructure procurement vs. public-private partnerships), transparency, unintended consequences, value for money.

Affordability
Must be considered against temptation to deliver world-class products which government can't afford or are deemed excessive.
PPP's are sometimes seen by public sector officials as a panacea for affordability issues – "the private sector will pay". Innovative funding ideas can be developed to improve affordability but innovative projects ideas which drive VfM will have bigger impact on affordability e.g. Inner city schools from refurbished buildings.
there has been a lot of media attention recently on the Gautrain and its affordability.
Current Environment
Current construction industry instability could be a risk for entering into long-term projects.
Current government seems to be conducive to economic development (lower risk than previous administration).
Currently perception is an issue, people are hesitant to engage or pursue PPPs due to concern that this is a form of privatisation – concern about state capture.
Currently the affordability ceiling is too low for government to be able to fund large projects upfront.
Framework in place.
Growing need for infrastructure investment in SA.
if the economy is constrained, there is less budgetary allocation to government entities so the less urgent aspects are often put to the side. However, implementing a PPP could help stimulate the local economy, which would be helpful particularly when the economic is under strain.
In a rand-based project environment stability sufficient although deteriorating in terms of tax collections which will bring long term affordability into question. Projects with a large imported component may face exchange rate risks.

PPP preference possible if private sector brings flexibility of how they delivery services, more efficient, can source items more affordably than public sector.
Improvements
A possible user-pays revenue stream. Difficult for Government to justify collecting infrastructure fees in addition to taxes.
Approval processes need to be reviewed to make them less onerous in terms of time to financial close (shorter).
Bankability of the idea is very important.
Business plan and business model.
Can be repeated to leverage skills on public and private sector sides, hence toll roads as a sector undertaken by SANRAL was successful (but then terminated politically).
Clear output specifications and don't set the standards or expectation too high (try a Rolls Royce on a VW budget).
Create realistic expectations using existing PPPs as case studies.
For schools – use existing body of knowledge on school typologies to achieve VFM through standardisation.
Government capital contributions to keep cost of borrowing down.
government support for municipal PPPs.
Higher skill or operational input from private sector (for example building a large water storage dam as a PPP makes little sense other than raising funds as little future management; contrast a hospital with or without provision of medical services).
improve the communication flow between government, its transaction advisors and the private party.
Increase Public Sector's capacity to implement PPPs (recruit more in-house specialists).
Involvement of key specialists from the start and continuity.
Leverage available funding.
Long-term programme of projects (such as IPPs).
more active government involvement in the process to minimise delays.
Political stability in the administrative sphere - must be continuity of project ownership (e.g. project leader had to present a project multiple times to political decision makers due to lack of continuity of stakeholders).
Political will, delivery focus and speed to market.
practicality of implementation for the government entity.
Provincial departments must have a clear brief - must limit scope creep.
Ready provision of seed capital at feasibility stage.
Simplify PPP processes (treasury approval too complex and too long).

Streamline procurement process (treasury approvals).
Systematic approach to project selection to ensure a sustained pipeline of appropriate PPP projects.
timelines may not meet the requirements of the client department especially based on current need.
Using programme approach with a pipeline of similar projects.
Market Competition
Competition is high (many bidders).
Probably declining due to low deal flow and lack of general public sector infrastructure spend, with similar declines in mining and large industry capacity.
there doesn't seem to be much procurement of PPPs at this stage, but hopefully it will pick up.
very concerning to the lenders if this has not been conducted correctly. Competition is important but it is important to note that a holistic view needs to be taken of all required aspects.
Political Will
Important not to underestimate the power of executive officials who are able to influence political heads and advocate for a particular stratagem - if a department or component has a proven track record then it has an advantage in generating the political will to move in a certain direction.
lack of appetite, innovation, novelty: "it's been done like this for so long, why change it now?"
Lack of confidence in PPPs due to many failed starts.
political support generally lacking, poor risk appetite among politicians.
PPP process been well run with good transparency and controls, but projects cancelled because did not offer sufficient opportunities for "participation".
Western Cape perceived as most likely to adopt innovative approaches. Need to overcome profit-motive and union criticism and focus on delivery.
without this projects stall, as can be seen with the DRDLR office accommodation project + this better than under the previous administration when projects stalled.
PPP Finance
Capital grant may lower costs, but may adversely affect risk transfer.
Combination of public and private.
Combination of public and private - important to link to risk transfer (private partner should take on majority of risk).
Depending on the size of the project, a capital contribution will make it more affordable and bankable but this should be in combination with a concession. This should then be combined with private finance and private party equity in the project.

General concern about off-book debt.
No best approach, depends on project.
On projects which do not involve a user charge (e.g. Prisons or schools) maximum benefit would be obtained by letting projects be fully funded by private sector with government paying a user fee. Properly structure this can lead to a high level of private sector debt funding (which has tax benefits to project and a provincial project).
Private companies prefer government borrowing due to costs to service debt and less risk in repaying debt during off-take period.
Upfront government contribution seems to work best on user-pay projects to make the tariff "affordable" (whether that is defined in economic or political terms), for example Chapman's Peak and Gautrain. This can be supplemented with a future contribution to alleviate user volume risk as in Gautrain.
Upfront government contribution will reduce future commitments improving long term affordability but may limit current affordability to leverage as many projects as possible.
PPP Period
Depends on nature of the project - e.g. FM was 12 year contract, DFBO 20-30 years, tourism PPP is 30 years, landfill site PPP 20 years.
In South Africa with relatively high interest rates (both real and nominal) extending beyond 15 years has little real impact on affordability. Term has traditionally been about 20-22 years based on what is available in market. PPP Project term has closely matched funding term to leave some tail for dealing with difficulties but not so long as to make shareholder returns too high. Project term should also include physical factors such as timing of major refreshments (e.g. 7 years on road project), major capex (such as lifts/generators), costs of retendering projects too frequently and government aims as to what to do at end of term (a research topic in itself).
The longer the better but banks are becoming less able to fund for tenors much beyond 15 years so this should start to guide PPP periods.
Private Sector Capacity
An inexperienced private party could negotiate a position that is not lender friendly and so may need to go back for changes. Further, the process is likely to take longer if the private party is inexperienced. It is thus important for the private party to have experienced transaction advisors (particularly financial, legal and technical) to navigate the complexities of PPPs and project finance.
Given that there has been a lull in PPPs recently, there are not that many skilled private party participants. The lenders and advisors still have the skills and experience.
Good capacity, but poor deal flow over last decade means skills have been refocussed elsewhere.
Skills exist but may be deployed in other areas due to lack of project flow. Could be worthwhile to survey financial and construction institutions to assess who has PPP / Project Finance teams and sizes.
Transaction Advisors are expensive - feasibility costs are significant, economy of scale required to make it worthwhile.
Public Schools as End Product

A PPP education programme could definitely be successful and could be led by the Western Cape. The need is probably far greater in other provinces and the political criticism in the Western Cape will probably be far higher but if a focus on service delivery is maintained this can be overcome. (As an aside, this should probably be compared to Gauteng school delivery where a school a month has been promised. I am not sure ow true this has been, especially over longer term rather than just around the elections. But a school a month is an easily digestible target to motivate a programme).
Alternative revenue streams for schools could be unlocked through this arrangement - i.e. how could schools sites be used otherwise in some form of revenue-generation scheme?
Favourable due to low risk infrastructure type.
Need to consider innovation in terms of site usage (standard school typology needs to be revisited given lack of available land, especially in the metro.
Needs stable environment - concern about demographic shifts as communities mature.
Not sure if this is a good idea as schools are social infrastructure and there is limited opportunity to recover costs through user charges, schools seem to lend themselves to TIP for this reason.
Potential for repetitive PPP framework to be developed due to modular and uncomplicated infrastructure type - this should reduce procurement time and provide efficiencies.
Private sector schools working due to fee-paying structure, public schools at risk due to mostly being no-fee schools so pressure on private partner to recover investment is strained.
Schools are uncomplicated so lend themselves to implementation + environment is competitive (many potential bidders).
Schools could be a good vehicle, but premise is on getting the correct balance based on norms and standards (financial model).
This could be tricky as there needs to be careful consideration of what the elements will be: will it just be infrastructure and infrastructure maintenance (this could work, if the budgetary allocation is confirmed); if it includes teaching staff this will need to be managed carefully. I am not sure if an education PPP has been conducted previously so if one has been done it would be helpful to understand the pros and cons of how this was procured and any lessons to take away.
Public Sector Capacity
Although strongly assisted by a programme approach, in many projects undertaken public officials were first time PPP participants and would never do another.
given that the government entity appoints and relies on transaction advisors, this is less important but it is helpful.
important for ongoing project management.
It is also necessary to have project managers able to deliver in this flexible environment and know where their role starts and ends and the private party's begins.
Lack of experienced officials with PPP specialist knowledge or experience.
Lack of in-house capacity to implement PPPs by government departments limits their preference as a delivery mode.

most officials involved in PPP's only do one project. Need to develop project skills and post-closing management skills. Possibly even consider outsourcing as develop depth.
Need internal specialists to oversee private sector transaction advisors and private partner.
Processes are not conducive (too complex and lengthy onerous).
Specialists in contract management required to ensure VFM is maximised during initial construction and operational period alike.
Regulatory Framework
Lenders want regulatory certainty from a framework to provide them with comfort that their debt will be repaid + this always remains important as it governs the relationships going forward for the life of the transaction. In SA the framework is in place.
PPP environment well developed if under-used. Have not seen any examples where framework creates a risk environment.
Regulatory framework is onerous / time-consuming.
Risk Transfer
private sector ability to borrow money and have capital in their coffers means easier to fund building, incentivised to reduce costs, completion risk transferred to private partner, maintenance and operation of infrastructure better than public sector (facilities management).
Public Sector appetite low - risk averse.
shift budget and capacity over to private partner.
this is important as the party best able to manage the risk should be responsible for it + this continues to be important and is a concern even during operations.
Too much government investment can limit risk transfer.
Threats for PPPs
Affordability (budget constraints).
Affordability (lack thereof).
Affordability to undertake a large scale roll-out which creates sufficient mass to generate economies of scale and VfM.
Bankable projects, i.e. projects with high probability of success due to sufficient collateral, forecast cashflow. Important for institutional lenders.
Complexity of process means people don't have the appetite for PPPs (political will).
Development of public sector skills to manage 3rd party service providers rather than own and manage in house projects.
Funding (capital injection) strained due to need to ensure as many projects get delivered as possible at the expense of one or two major projects.
Government support for PPPs and for financial underpin.
Lack of innovation.

Lack of patience - PPPs take time to put together.
Lack of proper screening process to identify high-profile PPP projects.
Lack of public sector capacity to implement PPPs.
Perception is an extensive approval process and costly (transaction advisor fees).
Political will present, but not at municipal level.
Political will to decide building of school infrastructure is not a Public Works responsibility and is a “consumable” which can be provided by private sector on similar basis to full maintenance car leases.
PPP understanding and buy-in (political will and advocacy).
PPPs that are put together in a limited competitive market (can't ensure VFM).
Public sector capacity - lack thereof and skill sets.
Public sector capacity - lack thereof, experience in producing meaningful output specifications.
Public sector experience (or lack thereof).
Revenue certainty, especially for municipal PPPs given no national treasury involvement in the financing arrangements.
Strong business cases - putting together a financial model that actually works.
TIP vs. PPP
Level the playing field between the PPP and TIP mode - mush easier to get a TIP project initiated (budget allocation) than a PPP (many phases of treasury approval).
At initiation phase TIP favoured due to ease of budget allocation vs. PPP approval (not a level playing field).
Because we haven't engaged in enough PPPs it's difficult to assess.
Expectations of level of service from private sector tends towards "Rolls Royce" offering, leaving PPPs incomparable with TIP.
PPP becomes more efficient over time.
PPP finance becomes ring-fenced for duration of PPP period.
PPP procurement is more complex, costly (especially upfront) and time-consuming.
The TIP model is already well set - officials at all points in the value chain.
The volume of historical PPP projects in the Western Cape (and in South Africa generally) makes it hard to say which is more successful. Albeit PPP’s have been around for a long time in many ways they are in their infancy due to small numbers. The Renewable Energy project is probably the best case study for efficiencies and market roll-out. Having said that I would suggest it’s a project-specific answer. The majority of basic infrastructure can still be TIB and PPP’s should be considered where meet qualifying criteria. Bear in mind this is also within a South African context, contrast to some French towns where all services are outsourced by a small elected council with very small permanent staffing structure.

Transparency
PPP process to date has been largely fair and honest but will depend on perceived integrity of implementing authority.
there are often processes in government that are not transparent, yet the transaction still proceeds.
Unintended Consequences
Be aware of trying to achieve too many development objectives as reduces competitor numbers.
Bid Evaluation processes are too long – hard to hold onto private partner during this period without adverse effects (VFM may be affected).
changes to the PPP can be difficult once the structure has been finalised and the project is operational.
Government departments may start thinking that they can do the service better.
If it's not correctly managed, such as scope creep from the private sector's side, if roles and responsibilities not correctly defined this may create the platform for a dispute.
If PPP procurement processes are not properly followed, project completion adversely affected and projects stall or fail.
Investment in PPPs leaves less discretionary capital for other projects (long-term commitments).
Lack of flexibility leaves potential for projects that do not have a long-term sustainable outlook.
loss of control by public sector due to unbundling contracts (subcontracting) leading to increasing costs.
Public sector tries to bake in too many secondary objectives (CPG targets, EPWP requirements, community involvement, training).
The success of PPP projects may have led to them embarrassing traditional departments on their delivery leading to PPP’s being shunned.
Transaction advisor bidding complications: need TA's to put bid together, but they also want to bid on the project.
While we are the custodians of the properties, the client department becomes the owner of the PPP and the authority of the custodianship may be seen to shift from the DTPW to the client department.
Value for Money
Private sector projects can generally deliver VfM but cognisance needs to be taken of their key factors – pipeline of projects warranting investment in time and people and certainty of process.
Public Sector Comparator cost exercise not fully understood, unfair expectations on private sector level of service (Rolls Royce expected by public sector when all that should be required is fit for purpose).

Review of private prisons showing value undermined by unrealistic standards enforced on private sector.
this is important only during procurement and becomes less important once the project has been procured.
VfM is an important factor but not most important if real issues are lack of capacity and lack of funding.